

Hiring Bias: A Vignette Study on Skin Color and Gender

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Abstract

This paper examines gender and skin-color biases in simulated hiring decisions among Mexican university students. Using a vignette study with 12 fictitious CVs (identical in skills but varying by gender/race), we test for discrimination in candidate selection and wage assignments for managerial, accounting, and cleaning roles. Results from chi-square tests and regression analysis reveal: (1) darker-skinned candidates are less likely to be selected for high-status roles (finance/accounting); (2) women and dark-skinned candidates receive significantly lower salary offers. Our findings highlight how stereotypes persist among future decision-makers, with implications for labor market inequalities.

Introduction

Gender and racial discrimination in the Mexican labor market has persisted historically despite recent advances in laws and social norms. According to Ortiz and Pérez (2018), skin color in Mexico operates as a sign of historical stratification that is related to the creation of stereotypes. These stereotypes create social categories that are used to exclude (or include) people from certain activities, for example, a job. Regarding gender discrimination in Mexico, the literature identifies two critical dimensions: wage differences and bias in candidate evaluation. Data from 2015 for Mexico show that men can earn 22.8% more income than women in equivalent positions (Aguiar & Gutiérrez, 2017).

Understanding the origin of these gaps requires not only documenting discrimination where it occurs—that is, in real hiring instances—but also identifying when and in whom the attitudes that produce it are formed. In this sense, few studies have explored these phenomena in educational contexts, where future decision-makers are formed. This study uses a methodology called vignette studies to evaluate biases in university students in business and economics majors, simulating a selection process with CVs identical in competencies but differentiated by gender and skin color.

The central argument of this research is that the attitudinal biases exhibited today by university students are relevant predictors of the discriminatory environment that future workers will face. If those training to be industrial relations specialists, accountants, and economists already manifest attitudes consistent with discrimination before graduating, it is reasonable to anticipate that these attitudes will translate into biased decisions once they occupy job evaluation positions.

The questionnaire invites 189 participants to analyze 12 fictitious CVs distributed to them and to choose which CV is the most suitable for the job position: manager, accounting, and cleaning. To test these findings, a two-sample chi-square test was performed, with the intention of seeing if skin color influences the participants' decisions. Furthermore, to test the wage gap, a regression analysis was conducted to find out if there is a significant difference in wages between men and women, and its determinants.

The main findings are as follows. First, according to the two-sample test, for the positions of financial management and accounting, skin color influences the choice of the best candidate. Second, the regression shows that participants assign lower salaries to CVs with dark skin tones compared to those with light skin tones, and lower salaries to women compared to men. Third, the evaluator's characteristics—major, social class, religion, and political affiliation—systematically predict the magnitude of these biases, suggesting that discriminatory attitudes are not homogeneous, but rather respond to specific profiles within the student population.

The study is structured as follows. The next section discusses previous findings on discrimination and the wage gap in the literature. Then, the methodology and vignette design are described. Subsequently, the results are presented, followed by the conclusions.

Conclusions

This research sought to document the structure of attitudinal biases regarding gender and skin color in a sample of university students in business and economics majors in Mexico, through a vignette study in which participants evaluated fictitious CVs identical in competencies, but differentiated by gender and skin

tone. The study does not aim to measure real hiring decisions, but rather to identify the extent to which discriminatory biases are present before these individuals enter the labor market as evaluators and what characteristics of the student profile predict them.

The results are consistent on two levels. At the level of the evaluated CVs, participants show attitudes that systematically favor light-skinned candidates for high-status positions (management and accounting), while skin color does not operate as a discriminating signal for the cleaning position. This pattern differentiated by occupational hierarchy suggests that biases based on skin tone are activated particularly in status contexts, which is consistent with the literature on pigmentocracy and social stratification in Mexico. In parallel, participants assign significantly lower salaries to women and dark-skinned candidates, and show a systematic preference for male candidates in high-hierarchy positions and for female candidates in low-hierarchy positions, configuring a pattern of occupational gender segregation in the sample's attitudes.

At the evaluator level, the most relevant finding is that discriminatory attitudes are not homogeneous: the major they study, the social class they identify with, the religion they profess, and their political affiliation systematically predict the magnitude of biases in salary assignment. This implies that discriminatory biases respond to specific profiles within the student population, which has direct implications for the design of interventions.

The contribution of this study is twofold. First, to our knowledge, it is the first vignette study applied to a university student population in Mexico, complementing the existing evidence from correspondence studies with real employers. Second, by focusing on students as future decision-makers, the design allows identifying biases in their formative stage, before they translate into real hiring or salary assignment decisions. If future administrators, accountants, and economists already exhibit these attitudes before graduating, it is reasonable to anticipate that they will persist—and potentially consolidate—upon entering the labor market.

These implications open a concrete agenda for higher education: curricular interventions aimed at developing awareness about implicit biases, especially in majors and student profiles where the documented biases are most pronounced, could contribute to reducing labor discrimination before it occurs.

This study presents some limitations that should be considered when interpreting the results. First, the sample size is relatively small: by dividing the 189 participants between two folders, each chi-square test is performed with subsamples of approximately 96 and 93 observations, which reduces the statistical power of the tests and partly explains the 10% confidence level at which the null hypothesis is rejected for management and accounting positions. Second, the documented effects are moderate compared to some correspondence studies with real employers; however, this is expected given the design: in a vignette study

with students, discrimination is measured through attitudes in a simulated context, which tends to produce more conservative effects than when observing real decisions with direct economic consequences for the evaluator. In this sense, the results should be interpreted as a lower bound of potential bias: if students without hiring power already exhibit these attitudes, it is reasonable to anticipate equal or greater effects when these individuals occupy real job evaluation positions. Finally, the sample comes from a single university in a mid-sized city, which limits the generalization of the results to other university contexts or regions of the country.