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Measuring labor market discrimination against LGBTQ+ in the case of Ecuador: A field experiment

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Measuring Labor Market Discrimination against LGTBQ+ in the Case of Ecuador:

A Field Experiment

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Abstract*

This paper presents the findings of an artificial field experiment conducted in urban Ecuador to investigate discrimination against LGBTQ+ (here restricted to individuals self-identified as gay or lesbian) job seekers in the labor market. Focusing on occupations and sectors where LGBTQ+ and non-LGBTQ+ individuals commonly apply, the study employed fictitious job applications evaluated by 394 human resource analysts. The results indicate that, on average, LGBTQ+ candidates did not face discrimination in terms of hiring recommendations, job fit assessments, or wage offers. However, a closer analysis reveals a gender-based differential treatment. Female LGBTQ+ candidates received positive discrimination, were more likely to be selected and offered higher wages compared to their heterosexual counterparts. In contrast, male LGBTQ+ candidates experienced negative discrimination and no wage differences with a lower likelihood of selection. The study found an influential role of female recruiters in driving these discriminatory behaviors. These findings contribute to our understanding of the complex dynamics of discrimination towards LGBTQ+ workers in the labor market and its interaction with gender.

JEL classifications: J15, J16, C9

Keywords: Discrimination, LGBTQ+, Employment, Field experiments

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1 Introduction

In the past three decades, developing countries have made progress in enacting legislation to protect LGBTQ+ people from discrimination in the labor market. For example, Ecuador, Bolivia, and Cuba have incorporated safeguards for LGBTQ+ rights into their constitutions, while Brazil, Honduras, Colombia, and Mexico provide legal protections against discrimination (Farrell, 2021). However, despite these legal advancements, LGBTQ+ advocates, policy makers, and politicians argue that prejudice and misinformation still shape cultural practices and norms, potentially impeding the effective enforcement of these laws. Consequently, the belief that discrimination against LGBTQ+ individuals remains widespread is prevalent, though empirical evidence on labor market discrimination against such individuals in developing countries is limited.

This paper aims to investigate the presence of labor market discrimination against LGBTQ+ individuals (here restricted to gays and lesbians) in urban Ecuador. Negative stigmatization faced by LGBTQ+ people can have adverse effects on their life outcomes. Labor market discrimination can not only impact current income and increase the likelihood of poverty, but can also hamper investments in the human capital of individuals who experience such discrimination, limiting their expected future earnings and leading to emotional distress and mental health problems (Drydakis and Zimmermann, 2020). Furthermore, companies that engage in discriminatory practices may miss out on talented candidates, instead opting to pay higher wages to less-qualified applicants (Flage, 2020). In general, discrimination against LGBTQ+ people in the job market results in suboptimal outcomes for both individuals and society, as it leads to inefficient allocation of talent and productivity while reducing the effectiveness of inclusive public policies.

To examine labor market discrimination against LGBTQ+ workers, we adopted a methodology similar to that of Zanoni, Acevedo, et al. (2023) and Zanoni, Díaz, et al. (2022), and conducted an artifactual field experiment. We hired 394 human resource recruiters (HRRs) in the local market in Quito and presented them with pairs of applicants for ten fictitious job offers, replicating a realistic hiring process. The HRRs had to choose their candidate of preference, as well as suggest salaries and assess the fit for the position of all candidates. To ensure the experiment's credibility and relevance, we positioned the task as the final stage of a genuine job selection exercise (the experiment was crafted in collaboration with an NGO in the country that specializes in job search and training programs for marginalized groups). Through the NGO, we also conducted interviews and focus groups with relevant stakeholders to ensure that the experiment mirrored the real-world job recruitment processes in Ecuador. We informed the HRRs that each candidate pair had already undergone preselection by recruitment experts, and their task was to evaluate the candidates for final hiring considerations. The experiment's design, including candidate profiles and the identification of occupations and sectors where LGBTQ+ individuals commonly compete with non-LGBTQ+ candidates, was informed by interviews, focus groups, and data from the 2019 household survey and official statistics.

Of the ten pairs of candidates that were to be evaluated, three pairs were specifically designed to be equivalent, except for one candidate who was randomly assigned to self-

identify as LGBTQ+. The remaining job applications involved comparisons between migrants and nonmigrants, women and men, and one placebo condition without any potentially prejudicial attributes (for a total of ten experimental trials per recruiter). Here, we focus on results from the LGBTQ+ comparisons made in the context of that broader field experiment. Our research design is a cost-effective data collection method to measure discrimination that allows to recover unique data from recruiters and addresses some ethical concerns associated with making research subjects spend their time for research purposes without compensation (as happens in prototypical correspondence studies on discrimination)¹. We ensured a competitive compensation for the participants' time, despite them evaluating fictitious candidates.

We examined conditional mean differences in hiring decisions, wages offered, and assessments of job candidates' fit for the job between LGBTQ+ and non-LGBTQ+ job applicants who possessed equivalent qualifications. We conducted analyses on various subsamples to further investigate the presence of heterogeneity in discrimination. These sub-samples were based on attributes of the candidates and recruiters such as gender at birth, skill levels, and job occupations. By examining these sub-groups, we aimed to uncover potential heterogeneity in discrimination patterns across different dimensions.

We pay particular attention to understanding how the interaction between the gender of recruiters and that of job applicants shaped discrimination. Discrimination by gender experienced by LGBTQ+ workers in countries with more progressive cultural norms, laws, and enforcement policies (such as countries in the USA and Europe) may differ from that experienced by LGBTQ+ workers in countries with less progressive norms, laws, and policies (such as countries in Latin America). Gender discrimination is lower in countries in the former group than in the latter (World Bank, 2020; Inter-American Development Bank, 2018; Human Rights Watch, 2016). Consequently, generating evidence of heterogeneity in discrimination by gender of the recruiter and that of job candidates in Ecuador enables us to identify some unique challenges and barriers faced by LGBTQ+ individuals in the Latin American region.

Our study findings indicate that, on average, there were no differential selection rates, wage assignments, or assessments of job fitness between LGBTQ+ and heterosexual job applicants with similar observable characteristics. Absent further analysis, the result would suggest the absence of systematic discrimination against LGBTQ+ individuals in these aspects of the hiring process when considering the overall averages.

However, upon closer examination, we uncovered underlying patterns that revealed positive discrimination toward female LGBTQ+ applicants and negative discrimination against male LGBTQ+ applicants. Specifically, recruiters chose LGBTQ+ women 57.5% of the time, compared to 42.5% for straight women. Furthermore, we observed a wage premium of 19.1% in favor of LGBTQ+ females over their heterosexual counterparts. Interestingly, these differences in selection rates and wages were found despite no discernible disparities in job fitness assessments between LGBTQ+ and straight women candidates. Conversely, when focusing on male candidates, we discovered a statistically significant and negative differential selection rate for male

¹See, for instance, the critics to correspondence studies by Zschirnt (2019) and Di Stasio and Pagano (2019) on this matter.

LGBTQ+ applicants compared to non-LGBTQ+ individuals (baseline discrimination rate for non-LGBTQ+ is 0.5142). Furthermore, male LGBTQ+ applicants were offered wages that were 16.3% lower than their straight counterparts, despite no discernible differences in the assessment of job fitness between male applicants in either group.

Notably, these estimates of discrimination can be traced to the behavior of female recruiters during the evaluation of job applicants, possibly resulting from power issues, as females were most of the recruiters hired in our experiment. Our results underscore the complexity of discrimination dynamics within the hiring process, highlighting the need to consider specific subgroups and gender-based biases. They suggest that female LGBTQ+ applicants may benefit from positive discrimination, while male LGBTQ+ applicants face negative discrimination.

We acknowledge that our study has limitations in terms of external validity. The findings may not be directly generalizable to the entire job market in urban Ecuador, as we focused on specific occupations where LGBTQ+ and straight applicants compete for jobs. However, we argue that this limitation strengthens the validity of our study by capturing the discriminatory behavior of recruiters in real-world job market scenarios. The specific subset of occupations and sectors we examined provides a realistic representation of the challenges faced by LGBTQ+ job seekers. Consequently, our findings can serve as a valuable guide for policymakers and stakeholders seeking to develop targeted anti-discrimination policies and initiatives that promote equal opportunities for LGBTQ+ individuals in the labor market.

The paper is organized as follows. Section 2 provides a brief review of the existing literature on sexual orientation and economic outcomes. Section 3 describes our methodology. Section 4 presents the data and empirical strategy of the paper. Section 5 presents the main results, and Section 6 offers a discussion and concludes the paper.

2 Background

In the field of economics, two analytical approaches are commonly used to explain discrimination in the hiring process: taste discrimination theory (Becker, 1957) and statistical discrimination (Arrow, 1973; Phelps, 1972). Taste discrimination theory suggests that bias arises from employers' prejudice against minority groups, resulting in lower wages for minority workers to compensate for the employers' perceived utility loss. Statistical discrimination, on the other hand, posits that recruiters have limited information to accurately assess the productivity of workers from minority groups, leading them to rely on general stereotypes and assign average characteristics to individual workers. In relation to our research question, the first theory predicts that prejudiced recruiters will prefer hiring heterosexual candidates and, if they do hire LGBTQ+ candidates, they will pay them lower salaries compared to non-minority workers with equivalent qualifications. The second theory predicts that when recruiters have negative perceptions about the productivity of LGBTQ+ workers, they are more likely to hire heterosexual candidates and may offer them higher wages.

Empirical research on employment discrimination faced by LGBTQ+ individuals is in fact limited, with a majority of studies relying on correspondence field experi-

ments primarily conducted in the United States and Europe. Studies such as Rainey, Imse, and Pomerantz (2015), Bailey, Wallace, and Wright (2013), Weichselbaumer (2003), Drydakis (2009), Drydakis (2014), and Patacchini, Ragusa, and Zenou (2015) have contributed to this body of knowledge. Overall, these studies consistently indicate that LGBTQ+ people encounter discrimination during the initial stages of the selection process, such as when they submit their resumes to companies. This discrimination is observed in the form of a preference for heterosexual candidates with similar skills and work experience.

Correspondence studies conducted in the United States by Tilcsik (2011) and Mishel (2016) reveal lower response rates for gay and lesbian applicants compared to their heterosexual counterparts. Similar correspondence studies conducted in Europe have also shed light on discrimination against gays and lesbians in the hiring process. For example, Ahmed, Andersson, and Hammarstedt (2013) find evidence of discrimination against homosexual men in male-dominated occupations and against lesbians in female-dominated occupations in Sweden. Drydakis (2014) suggests discrimination against gay men and lesbians in favor of heterosexual candidates in Cyprus. On the other hand, Patacchini, Ragusa, and Zenou (2015) finds no evidence of discrimination against lesbian women compared to heterosexual women in Italy. These studies collectively contribute to our understanding of the employment discrimination faced by LGBTQ+ individuals, highlighting the presence of biases and barriers that hinder their equal access to job opportunities. However, it is essential to recognize that the findings may vary across different countries and regions due to cultural, legal, and societal differences.

Conducting further research in diverse contexts and regions, such as Latin America (LATAM), is crucial for gaining a comprehensive understanding of LGBTQ+ discrimination and formulating effective strategies to address it, considering the limited empirical evidence available. This type of research holds particular relevance for the LATAM reality, given that evidence suggests gender discrimination is more prevalent in the global south compared to the United States and Europe, for instance. Exploring potential interactions between gender and LGBTQ+ discrimination in Ecuador can provide valuable insights and inform tailored interventions and policies thorough the Latin American region. By examining LGBTQ+ discrimination in Latin America, we can highlight specific challenges and barriers faced by LGBTQ+ individuals, contributing to the global fight for equality and inclusivity with region-specific knowledge and targeted approaches.

To the best of our knowledge, there has been no research measuring hiring discrimination against LGBTQ+ job candidates in Latin America. The lack of evidence can be attributed to the limited inclusion of sexual orientation and gender identity in official statistics and labor market research, as well as the low response rates to surveys on these topics in the region. This under-representation of the LGBTQ+ population in data sources (and consequently in empirical research) implies that the extent of discrimination against LGBTQ+ individuals in the region is likely underestimated (if not unknown). Therefore, our study contributes to filling this research gap by examining the prevalence of discrimination against LGBTQ+ individuals in the Ecuadorian labor market.

The Ecuadorian Constitution guarantees LGBTQ+ individuals the enjoyment of all rights on equal terms (Article 11, number 2). However, according to Álvarez (2017), despite these constitutional provisions, Ecuador’s social structure still perpetuates exclusion and discrimination against those who deviate from societal norms. Workplace discrimination based on sexual orientation, body aesthetics, and gender identity is prevalent in the country. The absence of clear policies that penalize prejudice against LGBTQ+ workers further exacerbates their precarious economic conditions.

According to the Case Study on Living Conditions, Social Inclusion, and Human Rights Compliance of the LGBTQ+ Population in Ecuador (INEC, 2013), a significant proportion of LGBTQ+ individuals in Ecuador (86.2%) are part of the economically active population. Among them, 94.5% are employed, while 5.5% are unemployed. LGBTQ+ individuals are primarily engaged in the services sector, with a considerable number working as store and market vendors (49.5%). The study also indicates that 3.5% hold managerial positions, 11.3% are professionals in scientific or intellectual fields, and 8.5% are employed as technical or intermediate-level workers. However, the survey highlights that 43.8% of the LGBTQ+ sample reported experiencing workplace discrimination, while 27.6% faced exclusion and an additional 27.6% reported acts of violence in their work environments (INEC, 2013).

Given the scarcity and outdated nature of data on labor market discrimination against LGBTQ+ individuals in Ecuador, we conducted a focus group to gain further insights into the sectors, industries, and occupations in which LGBTQ+ people work and compete for jobs with heterosexual workers (see Appendix B for details of the focus group; Table B1). The focus group discussions also provided qualitative information about participants’ personal experiences of discrimination in hiring processes and work environments. From the focus group, several key insights emerged. For instance, LGBTQ+ individuals often target employment opportunities in NGOs and retail stores that explicitly support diversity. Lesbians face barriers when attempting to enter traditionally masculinized professions, while design and architecture are popular fields among the gay population due to the opportunities for creativity and self-expression. Focus group participants also disclosed that they encountered intrusive questions on job applications, such as marital status, pregnancy plans, and their partner’s details. Fearing rejection during the selection process or subsequent discrimination, many respondents chose to omit or fabricate answers. Additionally, LGBTQ+ individuals find it challenging to reach management positions, and those who do often conceal their sexual orientation. Lastly, our research also found LGBTQ+ workers think companies are reluctant to openly support the LGBTQ+ population for fear of losing clients, leading job applicants to conceal their sexual preferences.

In light of these findings, it was highly suggestive that LGBTQ+ individuals face significant obstacles and discrimination in the Ecuadorian labor market. The qualitative insights from our focus group complement the existing limited data on this topic, highlighting the need for further research and policies to address workplace discrimination against LGBTQ+ individuals in Ecuador.

3 Research design

To implement our field experiment, we hired Grupo FARO, a reputable NGO specializing in job search and training programs, ensuring expertise in working with minority groups in Ecuador.² That organization provided valuable local expertise, including guidance and assistance in the design of data collection processes and in the design of job candidate profiles. Their extensive experience contributed to the experiment’s robustness and applicability to real-world scenarios.

Furthermore, we hired experienced human resource recruiters (HRRs) from Quito’s labor market. The task was presented to them as a genuine job-hiring exercise, ensuring their engagement and commitment. The selection of recruiters was done using two methods: respondent-driven sampling (RDS) referrals and advertisement of a job opportunity on LinkedIn. Using different recruitment strategies, the study aimed to capture a diverse range of perspectives and ensure the representation of various segments of the labor market. To compensate recruiters for their time and expertise, they were remunerated competitively according to the rates of the local market. This step not only acknowledged the value of their contribution but also fostered their active participation and dedication to the experiment. By implementing these measures, including collaborating with Grupo FARO, recruiting experienced HRRs, and providing appropriate compensation, the current field experiment sought to strengthen the reliability, validity, and applicability of the findings, thus improving the credibility and impact of the research results.

To inform our design, we engaged in interviews and focus groups with key stakeholders, including recruitment agencies, LGBTQ+ workers, and labor market experts. Through these interactions, we gained valuable information and feedback on the dynamics and obstacles encountered by LGBTQ+ individuals during real job recruitment processes. This input played a crucial role in shaping our experimental design to closely replicate an authentic job market setting in Ecuador, ensuring the credibility and applicability of our findings within our specific context.

Furthermore, we leveraged data from the 2019’s official household survey data from Ecuador (the “Encuesta Nacional de Empleo, Desempleo y Subempleo (ENEMDU)” in Spanish) to inform the creation of our fabricated job vacancies. Careful consideration was given to selecting occupations and sectors where LGBTQ+ workers commonly compete along with candidates who are not LGBTQ+. This deliberate alignment with the existing labor market landscape enhanced the robustness of our empirical strategy and enabled it to accurately reflect the realities faced by LGBTQ+ individuals in their job search. These measures exemplify the rigor and reliability of our research design, as we incorporate stakeholder perspectives and utilize pertinent data. As a result, our experiment provides valuable information on the consequences

²Grupo FARO is a non-governmental, non-profit organization based in Quito, Ecuador, that aims to contribute to the construction of a more democratic, equitable, and sustainable society in Ecuador and the Latin American region. The organization conducts research, advocacy, and capacity-building activities in various areas, including governance and democracy, social policies, environmental and natural resources, and economic development. Grupo FARO works with different stakeholders, including government agencies, civil society organizations, academic institutions, and international partners, to promote evidence-based policymaking, citizen participation, and social innovation.

of urban discrimination on LGBTQ+ workers within the labor market.

3.1 The synthetic profiles of job applicants

We aimed at creating a realistic and controlled experimental environment in the field that would enable us to measure and analyze the potential discrimination faced by LGBTQ+ job applicants in the Ecuadorian labor market. To do so, we created synthetic resumes that closely resembled actual job applications in the Ecuadorian formal labor market. We strived to present realistic profiles of candidates who were comparable in terms of their qualifications and relevant attributes, except for their self-identification as LGBTQ+. This allowed us to isolate the impact of LGBTQ+ identity on the recruiters' evaluations and decisions.

Out of the ten trials in the experiment, three trials included an applicant randomly assigned to disclose his/her LGBTQ+ membership, while the other did not. Additionally, three trials involved comparisons between women and men, and three between migrants and locals. An additional placebo trial was included where there were no distinguishable prejudiced attributes in the pair of job applicants presented to the recruiters. Having multiple minority dimensions and a placebo trial allowed us to investigate discriminatory behaviors when assessing LGBTQ+ job applicants compared to non-LGBTQ+ applicants with equivalent qualifications while disguising the main objective of the research. In general, the experiment comprised ten trials, including a mix of different comparisons to explore discrimination in various contexts.

The profiles of candidates were created with the support of a local implementing agency in Quito. To evaluate the similarity in the information provided to the recruiters in the experiment across candidates with and without the LGBTQ+ attribute, Table A1 in Appendix A shows balance tests, where we assessed for the differences in means by the LGBTQ+ attribute, across all observable characteristics presented in the profiles (with their respective standard errors). Columns (1) and (2) show each group's means of attributes. Column (3) shows the difference between those averages with the p-value of the t-test that evaluated that difference in parentheses. As can be seen, candidates were equivalent in age and technical qualifications, such as years of work experience and the number of past jobs. In the same way, we observe that the profiles are equally distributed through the vacancies. Because the observable attributes appear balanced, our working hypothesis is that the differences in the rates at which the recruiters preferred a candidate with an LGBTQ+ profile vis-à-vis one without such a profile can be attributed to discriminatory behaviors of the recruiters.

The experiment also aimed to investigate the effects of a “nudge” intervention by randomly assigning a pop-up message to half of the recruiters before they proceeded with the final round of the experiment. The purpose of this randomization was to obtain experimental estimates of how the pop-up message influenced the recruiters' behavior regarding discrimination. Only a subset of recruiters (48 in total) were exposed to the pop-up message before evaluating the final trial related to LGBTQ+ candidates. This additional analysis (which will be published as a companion paper) tested the efficacy of the randomly assigned pop-up message in affecting recruiters' discriminatory behavior towards LGBTQ+ job applicants. The pop-up message in-

icated that the “firm” followed anti-discrimination hiring practices and policies. By randomly assigning the message, we aimed at recovering experimental estimates of its effects on the post-message discriminatory behavior of recruiters.³

3.2 The online platform to conduct the experiment

To implement our experiment, we developed a custom web platform tailored to the specific requirements of our study. This platform served as the interface through which we presented the candidates to the participating recruiters and collected their responses and evaluations. The web platform was designed to ensure a smooth and user-friendly experience for the recruiters while maintaining the integrity of the experiment.

The platform incorporated features that allowed us to present pairs of job applicants and collect relevant information from recruiters. It allowed the recruiters to view the synthetic resumes representing the job candidates and to evaluate them based on their qualifications and other relevant factors. The recruiters were asked to select the candidate they considered the most suitable for the specific job vacancy, provide salary offers to both applicants (chosen or not), and rank the candidates based on their perceived potential productivity.

The web platform also facilitated the randomization of the LGBTQ+ comparison in the ten trials, ensuring that the LGBTQ+ identity of the candidates appeared in a balanced and unbiased manner throughout the experiment. Furthermore, the platform securely collected and stored the recruiters’ responses, ensuring the confidentiality of their evaluations and maintaining the anonymity of the participants. In the following sections, we will provide more detailed information on the design, functionality, and technical aspects of the web platform used in our experiment, offering a comprehensive understanding of its role in the successful execution of the study.

3.3 The recruiters: how did we hire them?

In this research, we employed two different methods to hire recruiters: respondent-driven sampling (RDS) and a LinkedIn ad. Here, we provide an overview of how we employed these two sampling methods to then analyze and discuss in the next subsection the characteristics of the recruited individuals based on the sampling method utilized.

RDS relies on a chain-referencing technique that connects individuals based on their network membership. The process starts with a small group of individuals known as “seeds” who participate in the study and are then incentivized to refer other individuals with the desired profile. This referral process occurs in successive waves, creating a network of participants referred by their peers. As the number of waves increases, the influence of the original “seed” diminishes. RDS is commonly used to sample populations that are hidden or difficult to reach, providing a means to access hard-to-reach individuals (Crawford, Wu, and Heimer, 2015; Gile, 2011). We

³Although the results are not discussed in this paper, including the pop-up message had implications for sample sizes because those recruiters exposed to the message could have only completed up to two valid trials where they assessed LGBTQ+ job applicants.

filtered the profiles of the recruiters for those who met the eligibility requirements of professional experience and education.

The RDS method had an idiosyncratic payment structure associated with the job. First, we paid each recruiter a lump-sum amount of USD 20 (in the form of a direct bank deposit) after the recruiter finished the ten rounds of the experiment.⁴ As part of the RDS, each participant was asked to refer four additional recruiters. An invitation to perform the task was then sent to the referred recruiters (see Appendix B, Figure B1; details on the process of follow-up and selection of recruiters can be found in Table B2 of Appendix B). If after two days the invited recruiter had not responded to the invitation, a reminder email was sent (see Appendix B, Figure B2). An additional USD 5 was paid for every person each recruiter referred, provided that the referred recruiter also completed the experiment.

Recruiters hired via LinkedIn followed a slightly different path. We published a post on LinkedIn calling for recruiters based in Quito to apply for a temporary job assignment with an international company in exchange for a fixed amount equivalent to USD 30, which would be directly deposited into the recruiter’s bank account upon completion of the job (see Appendix B, Figure B3). The post specified the following job requirements: a university degree in human resources, labor relations, and/or related fields; one year of work experience in the Ecuador labor market; and knowledge of Ecuadorian labor law. The post explicitly mentioned that the duration of the task was approximately three hours (see Appendix B, Figure B4).

Once the recruiters recruited via LinkedIn applied for the job, we filtered their profiles for those who met the eligibility requirements of professional experience and education, similar to the process followed in the RDS method. We sent those who qualified an email with instructions on how to perform the tasks of the experiment (see Appendix B, Figure B5). The email announced that they had been selected for the job and provided the information necessary to access the web platform.

3.4 The data collection process

All study participants were required to register on the online platform and provide the necessary information. The information collected encompassed personal attributes such as socioeconomic background, education, work experience, and the results of cognitive and non-cognitive ability tests (see Appendix A for detailed information on these tests). Additionally, we administered questions to assess their knowledge of the local labor market.

To gain further insights into the recruiters’ behavior, we tracked the duration of time spent by each recruiter on reviewing job applications. We also monitored their activity on the web platform, specifically the tabs they accessed. The web platform contained four tabs: 1) “Personal Information,” 2) “Work Experience,” 3) “Schooling/Training,” and 4) “Additional Information.” By analyzing these measures, we

⁴Notice that the monthly Ecuadorian minimum wage at the time was US\$ 2.5 per hour (US\$ 400 minimum wage/160 hours worked in a month), making the payment to the recruiters competitive for it represented 8 times its minimum wage analog.

obtained a comprehensive dataset that allowed us to better understand the behavior and characteristics of the recruiters involved in the study.

The registration process ended with some questions about the recruiters' knowledge of Ecuadorian labor market regulations, with the purpose of screening out people not familiar with recruitment processes in that specific market. After completing the registration process, we contacted the recruiters via email and provided them with the information necessary to access the online platform where they would perform the tasks of the experiment. If they did not start working on the experiment within a day after registering, we sent them a reminder email asking them to do so (see Appendix B, Figure B2).

Once successfully registered, and after they provided information about their characteristics, recruiters were presented with 10 randomly ordered job vacancies. To complete a trial of the experiment, the recruiters had to evaluate a pair of job candidates randomly assigned to a vacancy (thus, the experiment had 10 trials). As remarked in previous sections, the two candidates in each trial were observationally equivalent except that one of them self-identified as a member of a minority group and the other did not.

Figure B6 of the Appendix B shows a screenshot of the homepage of the platform where recruiters completed the experiment by clicking on a tab to perform the required tasks. A subsequent screen displayed ten tabs randomly ordered that corresponded to the ten job vacancies studied (Appendix B, Figure B7). The vacancies were selected to reflect the frequency distribution of job occupations in Quito's labour market relevant to the LGBTQ+ community, according to results from our focus groups. Targeted occupations included low-skill ones (call-center operator, maintenance technician, warehouseman, cleaning operator, and sales agent) and high-skill ones (accountant, software developer, computer engineer, project manager, production supervisor – manufacturing).

Once a recruiter clicked on a vacancy tab, the platform automatically displayed the description of that vacancy (Appendix B, Figure B8) and showed four additional tabs with the general objective of the job, the specific functions that the worker would perform, as well as the technical knowledge and training required to succeed in the job. To access the information pertaining to each vacancy, the recruiter had to click on those tabs.

Subsequently, the recruiters were presented with information about the two job candidates, who appeared side by side in the web platform interface (Appendix B, Figure B9). The data about the job candidates were presented in five groups (each in a tab in the platform), namely (1) contact information (name, area of residence, telephone, and email), (2) personal information (date of birth, gender, nationality, area of residence, and whether the candidate belongs to a minority group), (3) educational background, (4) work experience, and (5) additional information. The "contact information" of the candidates was always displayed, but, as shown in Figure B9 of the Appendix B, to view the rest of the information that described the applicants' qualifications for the job, the recruiters had to click on specific tabs. In particular, to realize they were comparing one applicant who belonged to the LGBTQ+ community with another who did not, the recruiters would have had to open the "Personal

Information” tab, where we explicitly showed the candidates’ self-identification as a member of the LGBTQ+ minority (Appendix B, Figure B10).

In the candidates’ information section, there was a button that enabled the recruiter to select the final candidate. Clicking on this option displayed a window that prompted the recruiters to select the final candidate for the position, evaluate the expected productivity of each worker on a scale of 1 to 10, and assign a salary in US\$ to both candidates. In addition, we offered an open question for recruiters to comment on the criteria on which they based their hiring decision (Appendix B, Figure B11). Once recruiters finished the exercise, they were instructed to contact us so that we could process the agreed-upon payment.

3.5 Sampling sizes

A total of 836 recruiters were contacted in Quito, the largest city in Ecuador, to participate in our study on hiring discrimination against LGBTQ+ minority groups. Out of these, 394 recruiters completed at least one trial of the experiment. The recruiters were presented with the opportunity to participate in an online paid job evaluation, while we conducted a covert field experiment. Each recruiter was assigned to complete 10 hiring rounds or trials, where they assessed a pair of job candidates. In each trial, the recruiters were instructed to select the candidate they believed was most suitable for the specific job vacancy, offer salaries to both applicants (whether chosen or not), and rank them based on perceived potential productivity or fit for the job using a scale ranging from 1 to 10. We informed the recruiters that the candidates had been preselected by recruiting experts and that their task was to evaluate them for potential hiring.

Table A5 in Appendix A shows the sample of recruiters according to the sampling method we employed to hire them. Using the RDS method we contacted 453 people, of whom 244 completed the exercise, 75 registered but did not start; and 3 started but did not finish. By means of direct recruiting via LinkedIn, we contacted 321 candidates, of whom 150 completed the exercise, 27 registered but did not start, and 3 started but did not finish. Combining the two sampling methods, we hired 394 recruiters (38% from LinkedIn, and 62% through the RDS). Female and male recruiters made up 70% and 30% of the sample, respectively.

The sample sizes resulting from the whole research design process are as follows: 333 recruiters evaluated three pairs of LGBTQ+ trials, 51 recruiters did so in two trials, and 10 recruiters in only one trial. This translated to a total of 1,111 completed trials, rendering an analytical sample of 2,222 observations (since we had one observation per job candidate evaluated). The high level of compliance in completing the tests may be attributed to the fact that the recruiters were paid only after they had finished the entire exercise. From the analytic sample, 1,386 observations come from recruiters hired through the RDS method (244 individuals) and 836 come from recruiters hired through LinkedIn (150 individuals).

3.6 Characteristics of the recruiters

Tables A2, A3, and A4 in the Appendix provide a comprehensive overview of the characteristics of the recruiters divided into three groups, namely: 1) Demographics and Education; 2) Scores in Standardized Tests, and; 3) Performance in the experiment.

As we can see in column (1) of Table A2 in Appendix A, the recruiters we hired were mostly young (averaging 31 years old) and the majority of them were women (70% of the sample). Most of them had college degrees (92%) and some had master’s degrees (21%). In terms of their work experience, they averaged around 7 years, with nearly 5 of those years working in as HR recruiters.

When examining differences in those dimensions according to the sampling method (columns 2-4), we first noticed that recruiters hired using RDS were on average two years younger than their LinkedIn counterparts. Recruiters in the former group also counted with 1.6 fewer years of overall work experience; a difference that almost mimics the differences in years of experience working as HR recruiters between them and those sampled with the LinkedIn method. In terms of educational credentials, recruiters hired by the RDS method were 11% less likely than their counterparts of having a bachelor’s degree.

Table A2 in Appendix A shows some socioeconomic variables that characterize recruiters by sampling method. As can be seen, regardless of the sampling method, recruiters are similar in terms of gender, age, nationality, and proportion with an HR-focused university degree⁵. The LinkedIn sample recruiters had slightly higher levels of education, more years of experience, and better knowledge of the Quito labor market. However, a higher proportion of RDS recruiters responded that they were employed.

In order to gain a better understanding of the characteristics of the recruiters, and their potential differences according to the sampling method, we conducted assessments of both cognitive and noncognitive abilities among the individuals under study. These assessments included the administration of the Wonderlic Intelligence Quotient (IQ) assessment, the Rosenberg self-esteem test, and the OCEAN-based personality test. The Wonderlic IQ assessment was utilized to evaluate participants’ cognitive abilities, while the Rosenberg test provided insights into their levels of self-esteem. The OCEAN-based personality test examined the traits of openness, conscientiousness, extroversion, agreeableness, and neuroticism. Table A3 in Appendix A shows the results of this evaluation, evidencing that LinkedIn recruiters tend to reflect lower levels in the neuroticism scale than RDS recruiters. No differences were observed in the other evaluation components.

We analyze the performance of the recruiters in the experiment by monitoring two groups of variables: the probability of opening each of the sections of the platform where we showed the profiles of the candidates, the time spent in each of these sections, and the total time required to complete the experiment. The results are shown in Table A4 in Appendix A. Conducting the tasks of the experiment took an average of 82 minutes, with RDS recruiters taking less time (75 minutes) compared to

⁵75% of LinkedIn and 74% of the RDS recruiters respectively had a degree in human resources (or related).

LinkedIn ones (who took 94 minutes on average). Compared to LinkedIn recruiters, RDS recruiters were less likely to inspect all the tabs of the web platform where we conducted the experiment. This behavior was particularly conspicuous with reference to the “Personal Information” and “Additional Information” tabs, with RDS recruiters showing 13.7% and 16.3% lower probability of opening the corresponding web tabs. These statistically significant differences indicate that the “LinkedIn” and “RDS” groups vary in their engagement with the experiment.

When considering the findings related to the recruiters’ characterization of the three preceding subsections, it becomes evident that the HR recruiters recruited through the RDS method, who tended to be younger and less experienced, exhibited distinct behaviors compared to the LinkedIn sample. Such differences could be explained by either less engagement or more proficiency. Regardless of the causes, the analysis here emphasizes the significance of accounting for the differences in the sampling method during the statistical modeling process and evaluating differences in results by the sampling method. As it will become evident in the results section of this paper, both strategies are at the core of our estimation strategies.

3.7 Empirical strategy

Differences in the means of the results between the groups of job candidates with and without the LGBTQ+ attribute were estimated with ordinary least squares (OLS) regressions. Each row in our database represents a job candidate. The first dependent variable of interest is *callbacks*, an indicator variable that has a value of one if the candidate is selected as the primary choice of the recruiter and a value of zero otherwise. The second variable, *fit for the job*, is a ranking on a scale of 1 to 10 that expresses the recruiter’s assessment of the suitability of the job applicant for the vacancy. The third dependent variable *wages* is the salary assigned by the recruiters to each candidate. Finally, the independent variable of interest is an indicator variable with a value of one if the candidate’s profile self-identifies as LGBTQ+ and zero otherwise. We computed the discrimination coefficient associated with the callbacks, fit for the job, and wage variables, as the coefficient estimate of the LGBTQ+ indicator in an OLS model as the following:

$$Y_{itr} = \beta_0 + \beta_1 X_{it} + \beta_k Z_{it} + \epsilon_{itr}, \quad (1)$$

where Y_{itr} represents either of the dependent variables: the choice of the best candidate (an indicator variable), the wages assigned to the candidates (log of wages), or the assessment of suitability for the job (a categorical variable taking values one to ten). The values of the variable Y_{itr} correspond to the behavior of the recruiter r when evaluating the synthetic candidate i , in trial t of the experiment. The variable X_{it} is an indicator of whether the candidate being evaluated was randomly assigned as a self-identified LGBTQ+. Z_{it} is a vector of controls that includes a series of fixed effects for the position of work associated with the trial. Finally, ϵ_{it} is an unobserved heterogeneity variable. The magnitude of the β_1 coefficient is attributable to the discriminatory behaviors of the recruiters. We will estimate the β_1 coefficient using ordinary least squares (OLS). We will conduct a heterogeneity analysis by estimating

models with that specification in the relevant sub-samples.

4 Results

4.1 Distributions of the Outcome Variables

Before diving into the general results of the study, we first discuss some aspects of the distribution of the outcome variables.⁶

To assess the recruiter’s selection of the best candidate, we utilize a variable called “callback.” This variable serves as an indicator, taking a value of one for the selected job applicant and zero for all other candidates. It represents the hypothetical scenario of calling up a job applicant for an interview, as it would have happened, for instance, in a correspondence field experiment.

Furthermore, the recruiters in our study assigned wages to all job applicants, regardless of whether they ultimately hired them. The variable “wages” in our database reflects these hypothetical wage recommendations by human resources recruiters (HRRs). The values of the wage variable are represented in their natural logarithm, which is a monotonic transformation chosen to facilitate the interpretation of the coefficients β_1 .

Lastly, the variable “fit/suitability for the job” represents the recruiter’s assessment of each applicant’s suitability for the corresponding vacancy. This assessment is made on a Likert scale ranging from 1 to 10, indicating the degree to which an applicant is perceived as a good match for the specific position.

Table 1 provides information on the differences and similarities between the “No LGBTQ+” and “LGBTQ+” groups regarding callbacks, suitability for the job, and wages log. In terms of callbacks, the mean values are 0.48 for the group “No LGBTQ+” and 0.52 for the group “LGBTQ+”, indicating a small difference of 0.04. However, the median values show a more pronounced distinction, with 0.00 for the “No LGBTQ+” group and 1.00 for the “LGBTQ+” group, representing a more significant variation. Both groups exhibit similar mean values for suitability for the job, with 8.60, indicating no notable disparity in this aspect. Moreover, the log of wages demonstrates consistency across the groups, as both have a mean of 6.74 and similar variance values. These findings suggest that while there may be some disparities in callbacks and median values, the groups show comparable levels of suitability for the job and wage distribution on average.

4.2 Main results: Discrimination against members of the LGBTQ+ community

In our design, if recruiters do not discriminate, then LGBTQ+ and non-LGBTQ+ job applicants should have (a) the same probability of being chosen by the recruiter,

⁶In our dataset, each row corresponds to a specific combination of candidate, trial, and recruiter. In particular, each trial is represented by two rows, which capture information and choices related to an LGBTQ+ candidate and a heterosexual candidate separately

Table 1: Summary Statistics by group:

For All			
	Callbacks	Fit for the Job	Log of wages
Mean	0.50	8.60	6.74
Median	0.50	9.00	6.68
Variance	0.25	1.48	0.26
P5	0.00	6.00	6.05
P95	1.00	10.00	7.60
Observations	2222	2222	2222
No LGBTQ+			
	Callbacks	Fit for the Job	Log of wages
Mean	0.48	8.60	6.74
Median	0.00	9.00	6.68
Variance	0.25	1.50	0.25
P5	0.00	6.00	6.05
P95	1.00	10.00	7.60
Observations	1111	1111	1111
LGBTQ+			
	Callbacks	Fit for the Job	Log of wages
Mean	0.52	8.60	6.74
Median	1.00	9.00	6.71
Variance	0.25	1.45	0.26
P5	0.00	7.00	6.05
P95	1.00	10.00	7.60
Observations	1111	1111	1111

(b) no differences in the wage offers received, and (c) equivalent values in the recruiters’ assessments of fit for the job. Differences in the conditional mean of those variables between the “No LGBTQ+” and “LGBTQ+” groups suggest the presence of discrimination.

We used three specifications to model the outcome variables. All models include an indicator variable to hold constant whether the sampling method was RDS or LinkedIn, and four indicator variables that indicate whether the recruiter opened each of the tabs in the online platform where we conducted the experiment ⁷. The estimator was OLS and we clustered the standard errors at the recruiter level in all

⁷As we indicated, those tabs are: 1) Personal Information; 2) Work Experience; 3) Schooling/Training, and 4) Additional Information

models.

We present our main results in Table 2. The first specification (**Model 1**) relates the outcome variable to the indicator for LGBTQ+ without additional controls, but only those that we just mentioned for the sampling method and tabs opened in the online platform. The second specification (**Model 2**) adds controls for the characteristics of the candidates (age, sex, years of education, number of previous jobs, years of experience, and an indicator of whether the candidate had a bachelor’s degree+). Finally, a third model (**Model 3**) includes a battery of 10 indicators for each of the ten positions analyzed in the experiment to account for the variations between those different job positions. The variable of interest in all models is the β_1 regression coefficient estimate of the indicator variable for the LGBTQ+ identification (which we call the “discrimination coefficient” or “discrimination effect” henceforth).

The results in Table 2 show that, on average, there is no evidence that recruiters discriminate against job applicants who belong to the LGBTQ+ group. In the table, only one of the nine coefficient estimates is statistically significant, yet at low values of conventional statistical precision (this corresponds to the wage outcome under specification in Model 2).

There is a negligible and statistically insignificant difference in the rate at which recruiters prefer candidates from the LGBTQ+ community compared to those who do not belong to this community. The mean rate of preference for non-LGBTQ+ candidates is 48.4%, resulting in a mere 2% difference that lacks statistical significance. Similarly, the differences in mean wages based on LGBTQ+ identity are extremely close to zero in absolute value and not statistically significant either, indicating a minimal 0.4% wage gap between the two groups. Furthermore, the analysis reveals no statistically significant disparities in the fit-for-the-job measure between LGBTQ+-identified and non-LGBTQ+-identified applicants. In summary, recruiters did not observe systematic differences in the suitability for the job between candidates who self-identified as LGBTQ+ and those who did not.

The results in Table 2 reveal that the inclusion of fixed effects of the job position between Model 2 and Model 3 significantly influences the magnitude of the estimates. The coefficient estimates change as controlling for job position fixed effects would impact the coefficient estimates in several ways. Firstly it helps account for confounding variables related to job positions, ensuring that the effects of characteristics correlated with LGBTQ+ identity are appropriately considered. Second, it allows for assessing heterogeneous effects across job positions, identifying whether the impact of LGBTQ+ identity varies across different positions. Lastly, including fixed effects helps reduce potential biases arising from omitted variables by capturing unobserved heterogeneity specific to each job position.

Notice that for the Callback and wages outcomes, the direction of the change when adding position fixed effects leaves the estimates closer to zero in absolute value, while in the case of the fit for the job variable, the estimate of β_1 becomes larger in absolute terms, yet preserves its negative sign. Those changes in the magnitudes of the discrimination coefficient estimates across outcomes can be due to various contributing factors, such as the different data-generating processes of the different outcome variables, the influence of job position-related characteristics, or how un-

Table 2: **Mean Discrimination Coefficients LGBTQ+**

	(1)	(2)	(3)
	Model 1	Model 2	Model 3
A. Callbacks:			
Discrimination Coeff.	0.0313 (0.0287)	0.0317 (0.0287)	0.0098 (0.0281)
Mean No LGBTQ+	0.4842	0.4842	0.4842
Observations	2222	2222	2222
B. Log of Wages:			
Discrimination Coeff.	0.0082 (0.0066)	0.0119* (0.0070)	0.0044 (0.0069)
Mean No LGBTQ+	6.7358	6.7358	6.7358
Observations	2222	2222	2222
C. Fit for the Job:			
Discrimination Coeff.	-0.0044 (0.0439)	-0.0026 (0.0438)	-0.0350 (0.0440)
Mean No LGBTQ+	8.6022	8.6022	8.6022
Observations	2222	2222	2222
Model specification:			
Applicant characteristics	NO	YES	YES
Job position fixed effects	NO	NO	YES
Indicator for sampling method (a)	YES	YES	YES
Indicators for tabs opened (b)	YES	YES	YES
Clustered standard errors	YES	YES	YES

Note: The values in the table represent OLS coefficients that indicate the mean difference in outcomes between candidates belonging to the LGBTQ+ group and those who do not. All regressions join observations for trials where the pop-up message (nudge) did not appear. In panel (A), the dependent variables are binary indicators for candidate selection ("callback") for the position. In panel (B), the dependent variable is the natural logarithm of the proposed candidate wage. In panel (C), the dependent variable measures the fit of the candidate for the job on a scale of 1 to 10. Additionally, (a) indicates the inclusion of covariates that indicate the recruiter sampling method (LinkedIn or RDS), while (b) indicates the inclusion of the four open tab indicators. Standard errors, clustered at the recruiter level, are reported in parentheses. * $p < .10$, ** $p < .05$, *** $p < .01$.

observed heterogeneity is accounted for when fixed effects are included. Overall the results highlight a nuanced relationship between LGBTQ+ identity and the outcomes of interest here studied. Because we think it is proper to account for those fixed effects, in what follows, we comment on the results from the model specification as in column Model 3.

In summary, Table 2 suggests that regardless of the model specification used, there exist minimal discrimination effects associated with the three outcomes, for most of them are statistically insignificant at conventional levels of precision. Thus, based on the results presented in Table 2, we cannot infer that recruiters treated job applicants from the LGBTQ+ group differently, either in terms of the probability of being chosen for the jobs, the assessment regarding fit for the job, or the wages assigned if they were to be hired.

Because these findings appear counterintuitive in light of the qualitative evidence we found through focus groups and interviews as discussed in previous sections suggesting discrimination exists, we conducted a more comprehensive analysis to explore potential heterogeneity patterns in the effects across relevant sub-samples.

4.3 Heterogeneity analysis: gender of the applicants and recruiters

Recruiters may discriminate in different ways when assessing job candidates, including those who identify as LGBTQ+ but were genetically born as male or female. Furthermore, their preferences and biases when evaluating applicants may also vary based on their own gender and even interact with the gender of the job seekers. For example, male recruiters may discriminate differently when evaluating pairs of candidates that include a male LGBTQ+ job seeker compared to pairs that include a female LGBTQ+ individual.

To test this hypothesis, we examine coefficient estimates on callbacks, job fit, and wages for different subsamples based on the gender of job applicants, recruiters, and combinations of both in Table 3. We calculated these discrimination coefficients using OLS with the same specification as described in Model 3 in Table 2.

The discrimination coefficients in rows 1 and 2 of Table 3 show that we cannot differentiate whether male or female recruiters prefer heterosexual candidates over LGBTQ+ candidates. None of the estimates for callbacks, job fit, and wages are significant, indicating that recruiters of different genders treat LGBTQ+ candidates and straight job applicants similarly.

However, the discrimination coefficients in rows 3 and 4 reveal significant differences. LGBTQ+ female job applicants experience positive discrimination, being called back more frequently (39% more than other female applicants) and considered a better fit for the job. On the other hand, LGBTQ+ male job applicants face discrimination, as they are called back less often (15.5% less than straight male applicants) and perceived as less suitable for the job. A similar pattern emerges in terms of wages, with LGBTQ+ females being favored and LGBTQ+ males being discriminated against.

These results suggest that the average effects found in Table 2 are influenced by the heterogeneity in discrimination based on the gender of LGBTQ+ applicants. Specifically, the discrimination effects observed in rows 3 and 4 primarily result from the behavior of female recruiters.

It is worth noting that the discrimination coefficients for male recruiters are all non-significant, indicating that no clear conclusions can be drawn from their data. However, this could be attributed to the lack of statistical power associated with the sample of men recruited for the study.

The results presented in Table 3 regarding discrimination coefficients are supported by the findings in Table C1 of Appendix C, where interaction terms were used. In Table C1, we estimated the coefficients using the entire sample and included interaction terms between the gender indicator variable and the LGBTQ+ indicator variable (again, we keep the same model specification as in the previous exercise). For instance,

Table 3: **Discrimination Coefficients by Gender of Applicants and Recruiters**

	(1) Callback	(2) Fit for the job	(3) Log of wages
1. Male Recruiter:			
Discrimination Coeff.	0.0091 (0.0510)	-0.0359 (0.0823)	-0.0125 (0.0118)
Mean No LGBTQ+	0.4849	8.5934	6.7548
Observations	664	664	664
2. Female Recruiter:			
Discrimination Coeff.	0.0115 (0.0340)	-0.0315 (0.0525)	0.0107 (0.0085)
Mean No LGBTQ+	0.4840	8.6059	6.7277
Observations	1558	1558	1558
3. Male Candidate:			
Discrimination Coeff.	-0.0796** (0.0360)	-0.1628*** (0.0535)	0.0008 (0.0091)
Mean No LGBTQ+	0.5142	8.6472	6.7593
Observations	1474	1474	1474
4. Female Candidate:			
Discrimination Coeff.	0.1681*** (0.0508)	0.1909** (0.0746)	0.0070 (0.0102)
Mean No LGBTQ+	0.4251	8.5134	6.6896
Observations	748	748	748
5. Male Recruiter - Male Candidate:			
Discrimination Coeff.	-0.0021 (0.0731)	-0.0534 (0.1041)	0.0058 (0.0110)
Mean No LGBTQ+	0.4886	8.6027	6.7931
Observations	438	438	438
6. Male Recruiter - Female Candidate:			
Discrimination Coeff.	0.0416 (0.0966)	0.0091 (0.1424)	-0.0413 (0.0266)
Mean No LGBTQ+	0.4779	8.5752	6.6806
Observations	226	226	226
7. Female Recruiter - Male Candidate:			
Discrimination Coeff.	-0.1098*** (0.0412)	-0.2046*** (0.0622)	-0.0005 (0.0120)
Mean No LGBTQ+	0.5251	8.6660	6.7450
Observations	1036	1036	1036
8. Female Recruiter - Female Candidate:			
Discrimination Coeff.	0.2220*** (0.0604)	0.2664*** (0.0896)	0.0215** (0.0104)
Mean No LGBTQ+	0.4023	8.4866	6.6934
Observations	522	522	522

Note: The values in the table represent OLS coefficients that indicate the mean difference in outcomes between candidates belonging to the LGBTQ+ group and those who do not for the outcomes at the top of each column. All models include controls for whether the sampling method was RDS or LinkedIn. Additionally, four indicator variables are included, representing whether the recruiter opened specific web tabs on the platform: 1) Personal Information, 2) Work Experience, 3) Schooling/Training, and 4) Additional Information. We also control for candidate characteristics, such as age, gender, years of education, number of previous jobs, years of experience, and an indicator variable for candidates with a bachelor's degree or higher. Position fixed effects are also included. Standard errors, clustered at the recruiter level, are reported in parentheses. * $p < .10$, ** $p < .05$, *** $p < .01$.

by examining the coefficients for the LGBTQ+ variable and the interaction term, we can recover the discrimination effect specific to males. Remarkably, this value is quite similar to the discrimination coefficient reported in Table 3. The same analysis for other combinations of gender and LGBTQ+ renders similar results.⁸

In conclusion, the findings here discussed reveal that discrimination in the labor market varies depending on the gender of recruiters, job applicants, and their interactions. Female recruiters tend to discriminate positively in favor of LGBTQ+ female applicants but negatively against LGBTQ+ males. Meanwhile, male recruiters do not show significant discrimination coefficients. These findings emphasize the need to consider multiple outcome variables and the interplay between gender and LGBTQ+ status when examining labor market discrimination against this population.

4.4 Heterogeneity analysis: discrimination across occupations

The differences in the magnitude of the discrimination coefficients observed when controlling for the position fixed effects serve as a motivation for further investigating heterogeneity in these coefficients across different occupations. Occupations possess unique characteristics, requirements, and cultural norms that can influence how LGBTQ+ identity impacts recruiters' discriminatory behaviors. By dividing the sample into subgroups based on occupations, we can examine whether the effects of LGBTQ+ identity vary across job contexts. Some occupations may demonstrate greater inclusivity and lower discrimination against LGBTQ+ individuals, while others may exhibit inherent biases or discriminatory practices. Our goal is to identify specific occupations where LGBTQ+ individuals face either heightened or reduced levels of discrimination compared to others. This analysis could provide insights into discrimination dynamics, and identify potential areas for interventions or policy action.

The values in Table 4 represent OLS coefficients of the mean difference in outcomes between candidates belonging to the LGBTQ+ group and those who do not for the outcomes at the top of each column by occupation. All models include controls for whether the sampling method was RDS or LinkedIn. Additionally, four indicator variables are included, representing whether the recruiter opened specific web tabs on the platform: 1) Personal Information, 2) Work Experience, 3) Schooling/Training, and 4) Additional Information. We also control for candidate characteristics, such as age, gender, years of education, number of previous jobs, years of experience, and an indicator variable for candidates with a bachelor's degree or higher. Standard errors, clustered at the recruiter level, are reported in parentheses.

Out of the 30 discrimination coefficients examined in Table 4 (corresponding to 10 occupations and 3 outcomes), only two coefficients are statistically significant, specifically for callbacks and the logarithm of wages in the software developer occupation.

⁸By estimating the effects on subsamples instead of the entire sample, we can model the discrimination-generating process separately for each gender. This approach is advantageous as it avoids confounding two distinct data-generating processes, which can introduce bias in the estimates, given potential heterogeneity in unobservable factors based on the gender of the candidates.

Table 4: **Discrimination Coefficients by Occupation**

	(1)	(2)	(3)
	Callback	Fit for the job	Log of wages
1. Commercial Advisor:			
Discrimination Coeff.	0.1595 (0.1098)	0.1389 (0.1906)	-0.0127 (0.0497)
Mean No LGBTQ+	0.3617	8.2553	6.6319
Observations	188	188	188
2. General Services Assistant - Cleaning:			
Discrimination Coeff.	-0.0173 (0.0923)	-0.1532 (0.1178)	-0.0094 (0.0101)
Mean No LGBTQ+	0.5500	8.9700	6.1202
Observations	200	200	200
3. Warehouse Keeper:			
Discrimination Coeff.	0.0887 (0.0881)	-0.0169 (0.1277)	0.0055 (0.0141)
Mean No LGBTQ+	0.5091	8.4364	6.3321
Observations	220	220	220
4. Certified Public Accountant (CPA):			
Discrimination Coeff.	0.0828 (0.1019)	-0.0867 (0.1428)	0.0187 (0.0269)
Mean No LGBTQ+	0.4359	8.6923	7.0395
Observations	234	234	234
5. Software Developer:			
Discrimination Coeff.	0.2217** (0.1020)	0.2531 (0.1675)	0.0591** (0.0246)
Mean No LGBTQ+	0.4151	8.5566	6.9592
Observations	212	212	212
6. Systems Engineer:			
Discrimination Coeff.	-0.0610 (0.0954)	0.0242 (0.1544)	-0.0157 (0.0221)
Mean No LGBTQ+	0.5726	8.6290	7.0983
Observations	248	248	248
7. Project Technical Manager:			
Discrimination Coeff.	-0.1321 (0.1103)	-0.0750 (0.1828)	-0.0050 (0.0209)
Mean No LGBTQ+	0.5686	8.5294	7.2414
Observations	204	204	204
8. Call Center Operator:			
Discrimination Coeff.	0.0658 (0.0932)	0.0848 (0.1397)	0.0105 (0.0138)
Mean No LGBTQ+	0.5089	8.6964	6.2573
Observations	224	224	224
9. Production Supervision (Manufacturing):			
Discrimination Coeff.	0.0489 (0.1038)	0.0603 (0.1625)	-0.0214 (0.0192)
Mean No LGBTQ+	0.4825	8.6579	6.8776
Observations	228	228	228
10. Maintenance Technician:			
Discrimination Coeff.	0.0627 (0.0877)	0.0049 (0.1275)	0.0125 (0.0199)
Mean No LGBTQ+	0.4318	8.5682	6.7164
Observations	264	264	264

Note: The values in the table represent OLS coefficients that indicate the mean difference in outcomes between candidates belonging to the LGBTQ+ group and those who do not for the outcomes at the top of each column. All models include controls for whether the sampling method was RDS or LinkedIn. Additionally, four indicator variables are included, representing whether the recruiter opened specific web tabs on the platform: 1) Personal Information, 2) Work Experience, 3) Schooling/Training, and 4) Additional Information. We also control for candidate characteristics, such as age, gender, years of education, number of previous jobs, years of experience, and an indicator variable for candidates with a bachelor's degree or higher. Standard errors, clustered at the recruiter level, are reported in parentheses. * $p < .10$, ** $p < .05$, *** $p < .01$.

While this result might be attributed to pure chance, the coefficients are positive suggesting discrimination in favor of LGBTQ+ job candidates. Moreover, most of the coefficients show a positive sign. The lack of statistical significance for the majority of coefficients hinders further comparisons, which could be attributed to the smaller sample sizes obtained in this analysis. The table does not provide evidence to suggest that a few occupations significantly deviate from the average results presented in Table 2.

4.5 Heterogeneity analysis: skill levels and its interaction with the gender of the applicant

To assess the presence of discrimination across different skill levels, we examined the sub-samples of high-skilled and low-skilled job vacancies. The results from Table 5 indicate that there is no significant discrimination against LGBTQ+ candidates in either high-skill or low-skill occupations. Coefficients for callbacks, fit for the job, and log of wages were consistently small and statistically insignificant in both categories.

However, when considering the gender of the job applicants, notable disparities emerge. In high-skill occupations, LGBTQ+ males face significant negative discrimination coefficients, experiencing 27% fewer callbacks and lower ratings for fit for the job compared to non-LGBTQ+ males. Conversely, in low-skill occupations, there is a statistically significant positive discrimination coefficient for the log of wages, suggesting that LGBTQ+ males may receive slightly higher wages than non-LGBTQ+ males.

For female job applicants, the discrimination dynamics differ. In high-skill occupations, LGBTQ+ females benefit from significant positive discrimination coefficients, receiving more callbacks and higher ratings for fit for the job. They are also offered higher wages, with a 3.3% wage difference compared to non-LGBTQ+ females. In low-skill occupations, LGBTQ+ females also experience a statistically significant positive discrimination coefficient for callbacks, indicating a 31% higher likelihood of receiving callbacks compared to non-LGBTQ+ females.

Overall, these findings highlight the presence of heterogeneous discrimination based on the skill level and gender of job applicants. While there is no discrimination by skill level, disparities exist when considering the gender of the candidates. LGBTQ+ males face challenges in high-skill occupations, while LGBTQ+ females receive both positive and limited discrimination in high- and low-skill occupations.

4.6 Estimates by Recruiters' Sampling Method (LinkedIn vs. RDS)

In order to investigate whether the idiosyncratic attributes of recruiters based on the sampling method employed influence our discrimination coefficients, we analyze the sub-samples of LinkedIn and RDS in Table 6. We also examine the differences between male and female job candidates. The discrimination coefficients in this table are estimated using OLS, and the model specifications follow those in Column 3 of Table 2.

Table 5: **Discrimination Coefficients by Skills and Gender of the Candidates**

	(1)	(2)	(3)
	Callback	Fit for the job	Log of wages
1. High Skills			
Discrimination Coeff.	-0.0070 (0.0421)	-0.0347 (0.0658)	0.0034 (0.0109)
Mean No LGBTQ+	0.4956	8.6163	7.0411
Observations	1126	1126	1126
2. Low Skills			
Discrimination Coeff.	0.0542 (0.0381)	-0.0016 (0.0553)	0.0079 (0.0085)
Mean No LGBTQ+	0.4726	8.5876	6.4222
Observations	1096	1096	1096
3. Male - High Skill:			
Discrimination Coeff.	-0.1380** (0.0600)	-0.2443*** (0.0919)	-0.0250 (0.0186)
Mean No LGBTQ+	0.5153	8.6607	7.0601
Observations	784	784	784
4. Male - Low Skill:			
Discrimination Coeff.	0.0259 (0.0495)	-0.0088 (0.0725)	0.0247** (0.0111)
Mean No LGBTQ+	0.5130	8.6319	6.4175
Observations	690	690	690
5. Female - High Skill:			
Discrimination Coeff.	0.1203 (0.0935)	0.3288** (0.1545)	0.0397* (0.0202)
Mean No LGBTQ+	0.4503	8.5146	6.9976
Observations	342	342	342
6. Female - Low Skill:			
Discrimination Coeff.	0.1266* (0.0701)	0.0571 (0.1073)	-0.0239 (0.0235)
Mean No LGBTQ+	0.4039	8.5123	6.4301
Observations	406	406	406

Note: The values in the table represent OLS coefficients that indicate the mean difference in outcomes between candidates belonging to the LGBTQ+ group and those who do not for the outcomes at the top of each column. All models include controls for whether the sampling method was RDS or LinkedIn. Additionally, four indicator variables are included, representing whether the recruiter opened specific web tabs on the platform: 1) Personal Information, 2) Work Experience, 3) Schooling/Training, and 4) Additional Information. We also control for candidate characteristics, such as age, gender, years of education, number of previous jobs, years of experience, and an indicator variable for candidates with a bachelor's degree or higher. Position fixed effects are also included. Standard errors, clustered at the recruiter level, are reported in parentheses. * $p < .10$, ** $p < .05$, *** $p < .01$.

In the overall analysis, Table 6 shows that the discrimination coefficients for callbacks and wages are not statistically significant for both LinkedIn and RDS samples. However, when considering the fit for the job, the LinkedIn sample shows a statistically significant negative discrimination coefficient (-13.39). This suggests that recruiters hired via LinkedIn perceive LGBTQ+ job candidates as a slightly lower fit (-0.1339) compared to their non-LGBTQ+ counterparts.

When focusing on male job candidates, we observe a consistent pattern of negative discrimination coefficients across both samples. However, the differences in the magnitude of the coefficients for callbacks and fit for the job are not statistically significant between RDS and LinkedIn recruiters as to estate that recruiters behaved differently according to the method we sampled them with. This indicates that while LGBTQ+ male job candidates are generally rated lower than non-LGBTQ+ males, our data do not provide evidence to suggest that RDS and LinkedIn recruiters treat them differently in terms of discrimination.

For female job candidates, both LinkedIn and RDS samples show significant positive discrimination coefficients for callbacks, with similar magnitudes. In the LinkedIn sample, the coefficient is 0.1517, indicating a higher likelihood of receiving callbacks for LGBTQ+ female job candidates compared to non-LGBTQ+ females. The RDS sample reinforces this pattern with a slightly higher coefficient of 0.1828. However, when considering fit for the job, the coefficients are both positive, but only statistically significant for the RDS sample (even though both of those coefficients are positively signed).

Overall, these findings confirm the presence of gender-based discrimination against LGBTQ+ candidates, with LGBTQ+ males facing negative discrimination while LGBTQ+ females having higher chances of receiving callbacks. However, the influence of the sampling method on discrimination coefficients is limited. This suggests that discrimination patterns remain consistent across different recruitment methods, indicating a persistent bias in the hiring process.

5 Discussion

Our study contributes to the broader research agenda on discrimination in Latin America by employing the first artifactual field experiment that investigates discrimination against LGBTQ+ individuals in the labor market. The reliability of our experiment design is supported by consistent results obtained in similar studies conducted in Argentina and Colombia that we have previously mentioned in this paper⁹. Our findings indicate that, when examined on average, there is no evidence of discrimination against LGBTQ+ individuals in terms of job selection probability, productivity assessment, or offered wages.

⁹The findings of Zanoni, Acevedo, et al. (2023) on discrimination against slum dwellers in urban Argentina, and Zanoni, Díaz, et al. (2022) on discrimination against migrants in Colombia's real estate market support the reliability and validity of our method based on an artifactual field experiment. These studies utilized correspondence and artifactual field experiments, demonstrating consistent results and emphasizing the influence of social norms on discriminatory behavior. By employing a similar methodology, we can confidently analyze discrimination against LGBTQ+ individuals in the labor market and draw meaningful insights from our experiment.

Table 6: **Discrimination Coefficients by Subsamples (LinkedIn vs. RDS)**

	(1)	(2)	(3)
	Callback	Fit for the job	Log of wages
1. Overall			
1.1 LinkedIn:			
Discrimination Coeff.	-0.0060 (0.0451)	-0.1339* (0.0698)	0.0026 (0.0119)
Mean No LGBTQ+	0.4952	8.6483	6.7245
Observations	836	836	836
1.2 RDS:			
Discrimination Coeff.	0.0236 (0.0363)	0.0335 (0.0562)	0.0093 (0.0086)
Mean No LGBTQ+	0.4776	8.5743	6.7427
Observations	1386	1386	1386
2. Male Job Candidates:			
2.1 LinkedIn			
Discrimination Coeff.	-0.0573 (0.0612)	-0.2231** (0.0896)	0.0120 (0.0152)
Mean No LGBTQ+	0.5144	8.6763	6.7517
Observations	556	556	556
2.2 RDS			
Discrimination Coeff.	-0.0927** (0.0453)	-0.1223* (0.0675)	-0.0032 (0.0120)
Mean No LGBTQ+	0.5142	8.6296	6.7640
Observations	918	918	918
3. Female Job Candidates:			
3.1 LinkedIn			
Discrimination Coeff.	0.1517* (0.0771)	0.1080 (0.1157)	-0.0076 (0.0201)
Mean No LGBTQ+	0.4571	8.5929	6.6705
Observations	280	280	280
3.2 RDS			
Discrimination Coeff.	0.1828*** (0.0657)	0.2515*** (0.0958)	0.0175 (0.0111)
Mean No LGBTQ+	0.4060	8.4658	6.7010
Observations	468	468	468
Model specification:			
Candidates' characteristics	YES	YES	YES
Indicator for sampling method (a)	YES	YES	YES
Indicators for tabs opened (b)	YES	YES	YES
Recruiters' Fixed Effects	NO	NO	NO
Clusterized Standard Errors	YES	YES	YES

Note: The values in the table are OLS coefficients that identify the mean difference in the outcomes associated to candidates that belong to a minority and the ones that do not. All regressions include observations for trials where vignette didn't appeared. Column titles show the dependent variable of the OLS regression, while the panels numbered 1 to 10 represent the subsamples selected for the heterogeneity analysis. Furthermore, (a) implies that the covariate that indicates if the recruiter sampling method was LinkedIn or RDS was included, whereas (b) implies that the "opened tab" indicator was included. * $p < .10$, ** $p < .05$, *** $p < .01$.

However, closer examination where the data is disaggregated by the genders of the job applicants and the recruiters, reveal diverging patterns. We found evidence of discrimination in favor of female LGBTQ+ candidates, who are also considered fitter for the job. Yet, contrary to what would be expected, they are offered wages that are no higher than the wages offered to their heterosexual counterparts. Recruiters' underpricing of wages of perceived high-skill candidates could be interpreted as a bet for strategic discrimination against LGBTQ+ women. On the other hand, male LGBTQ+ candidates experience negative discrimination, as they are both selected at a lower rate and perceived as less fit for the jobs, in spite of their observational equivalence with straight male job candidates.

That gender-based divergence between male and female LGBTQ+ individuals may be attributed to various factors, including interpretations of disclosure of sexual preference, gender roles, and perceived differential costs related to childbearing for LGBTQ+ people. Our study highlights the complexities of gender-driven discrimination faced by LGBTQ+ people, just to highlight the need for both, more knowledge about the realities faced by this minority group, and the need to target interventions and policies to promote equal opportunities in the labor market for them.

Furthermore, our field experiment provides valuable insights into the actual sectors, industries, and occupations where LGBTQ+ individuals work in Quito's labor market. It goes beyond callback rates (the outcome that most of the empirical literature focuses on) and reveals the obstacles faced by members of the LGBTQ+ minority during the hiring process, from a more comprehensive perspective of what are the recruiters' preferences. While the external validity of our study is limited, an attribute of all empirical literature on this subject, it offers unique insights into the complexities of discrimination and provides a foundation for future research and policy interventions aimed at promoting inclusivity and equal opportunities for LGBTQ+ individuals in the labor market.

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6 Appendix

A Sample and data

Table A1: Candidates' Balance Table

Variable	(1) No LGBTQ+	(2) LGBTQ+	(3) Difference (1) - (2)
Demographics and Education			
Age (years)	29.997 (3.620)	29.950 (3.576)	-0.048 (0.153)
Gender (Female == 1)	0.337 (0.473)	0.337 (0.473)	0.000 (0.020)
Number of Previous Jobs	3.043 (0.788)	3.043 (0.788)	0.000 (0.033)
Employment Experience (years)	4.728 (1.392)	4.752 (1.439)	0.024 (0.060)
Is candidate considered a professional? (Yes == 1)	0.591 (0.492)	0.591 (0.492)	0.000 (0.021)
Education: Secondary	0.090 (0.286)	0.090 (0.286)	0.000 (0.012)
Education: Technical	0.319 (0.466)	0.319 (0.466)	0.000 (0.020)
Education: Professional	0.591 (0.492)	0.591 (0.492)	0.000 (0.021)
Applied Job Position:			
Job Position: Comercial Advisor	0.085 (0.278)	0.085 (0.278)	0.000 (0.012)
Job Position: General Services Assistant - Cleaning	0.090 (0.286)	0.090 (0.286)	0.000 (0.012)
Job Position: Warehouse Keeper	0.099 (0.299)	0.099 (0.299)	0.000 (0.013)
Job Position: Certified Public Accountant (CPA)	0.105 (0.307)	0.105 (0.307)	0.000 (0.013)
Job Position: Software Developer	0.095 (0.294)	0.095 (0.294)	0.000 (0.012)
Job Position: Systems Engineer	0.112 (0.315)	0.112 (0.315)	0.000 (0.013)
Job Position: Project Technical Manager	0.092 (0.289)	0.092 (0.289)	0.000 (0.012)
Job Position: Call Center Operator	0.101 (0.301)	0.101 (0.301)	0.000 (0.013)
Job Position: Production Supervision (Manufacturing)	0.103 (0.304)	0.103 (0.304)	0.000 (0.013)
Job Position: Maintenance Technician	0.119 (0.324)	0.119 (0.324)	0.000 (0.014)
Observations	1,111	1,111	2,222

Note: The table shows the comparison (column 3) between the profiles with the LGBTQ+ attribute (column 1) and those without that one (column 2), according to the percentage of these profiles that show some demographic and educational characteristics (first panel) and the distribution of the profiles according to the vacancy shown on the platform (second panel).

Table A2: Recruiters' Demographic and Education Characteristics

Variable	(1) All	(2) Linkedin	(3) RDS	(4) Difference (2)-(3)
Demographics and education				
Age (years)	31.429 (7.413)	32.657 (7.140)	30.675 (7.492)	-1.982** (0.790)
Gender (Female == 1)	0.703 (0.457)	0.693 (0.463)	0.709 (0.455)	0.016 (0.048)
Nationality (Ecuadorian == 1)	0.977 (0.150)	0.953 (0.212)	0.992 (0.090)	0.038** (0.015)
Employment Experience (years)	6.894 (6.000)	7.878 (5.485)	6.279 (6.233)	-1.599** (0.626)
Employment status (Employed == 1)	0.602 (0.490)	0.544 (0.500)	0.638 (0.482)	0.094* (0.051)
Does the recruiter has at least a Bachelors degree? (Yes == 1)	0.919 (0.274)	0.987 (0.115)	0.877 (0.329)	-0.110*** (0.028)
Recruiter is a Human Resources Major? (Yes == 1)	0.741 (0.439)	0.753 (0.433)	0.734 (0.443)	-0.020 (0.046)
Education: Primary	0.005 (0.071)	0.000 (0.000)	0.008 (0.090)	0.008 (0.007)
Education: Secondary	0.043 (0.203)	0.000 (0.000)	0.070 (0.255)	0.070*** (0.021)
Education: Post Secondary	0.033 (0.179)	0.013 (0.115)	0.045 (0.208)	0.032* (0.019)
Education: University	0.708 (0.455)	0.720 (0.451)	0.701 (0.459)	-0.019 (0.047)
Education: Master	0.206 (0.405)	0.260 (0.440)	0.172 (0.378)	-0.088** (0.042)
Education: Doctorate	0.005 (0.071)	0.007 (0.082)	0.004 (0.064)	-0.003 (0.007)
Knowledge of Quito's labor Market	0.943 (0.140)	0.959 (0.110)	0.933 (0.155)	-0.026* (0.015)
Observations	394	150	244	394

Note: Stars indicate the statistical significance of differences in means across groups at various significance levels: * $p < .10$, ** $p < .05$, *** $p < .01$. Columns (2) and (3) display the attributes of recruiters based on whether they were sampled and hired using the RDS or the LinkedIn method.

Table A3: Recruiters' Scores in Standardized Tests

Variable	(1) All	(2) Linkedin	(3) RDS	(4) Difference (2)-(3)
Scores in standardized tests				
Standardized values of neuroticism	-0.005 (1.000)	-0.225 (0.890)	0.131 (1.041)	0.355*** (0.102)
Standardized values of extroversion	-0.000 (1.000)	0.013 (1.073)	-0.009 (0.954)	-0.022 (0.104)
Standardized values of openness	-0.001 (0.999)	-0.034 (1.019)	0.019 (0.988)	0.053 (0.104)
Standardized values of agreeableness	0.000 (1.000)	0.017 (1.049)	-0.010 (0.971)	-0.027 (0.104)
Standardized values of conscientiousness	0.002 (1.001)	-0.001 (1.064)	0.004 (0.962)	0.004 (0.104)
Score in Neoffi test (std.)	-0.000 (1.000)	-0.032 (1.064)	0.019 (0.960)	0.051 (0.104)
Score in Rosenberg test (std.)	0.000 (1.003)	-0.057 (1.072)	0.035 (0.960)	0.092 (0.104)
Score in Wonderlic test (std.)	-0.004 (0.999)	-0.057 (1.012)	0.030 (0.991)	0.087 (0.104)
Observations	394	150	244	394

Note: Stars indicate the statistical significance of differences in means across groups at various significance levels: * $p < .10$, ** $p < .05$, *** $p < .01$. Columns (2) and (3) display the attributes of recruiters based on whether they were sampled and hired using the RDS or the LinkedIn method.

Table A4: Recruiters' performance in the experiment

Variable	(1) All	(2) Linkedin	(3) RDS	(4) Difference (2)-(3)
Performance in the experiment: (a)				
Opened Personal Information tab	0.791 (0.308)	0.876 (0.230)	0.739 (0.338)	-0.137*** (0.031)
Opened Work Experience tab	0.950 (0.156)	0.984 (0.058)	0.929 (0.190)	-0.055*** (0.016)
Opened Schooling/Training tab	0.901 (0.220)	0.951 (0.127)	0.871 (0.256)	-0.079*** (0.022)
Opened Additional Information tab	0.723 (0.295)	0.823 (0.231)	0.661 (0.313)	-0.163*** (0.030)
Time Reviewing Applications: (b)				
Total time (min)	82.690 (60.267)	93.812 (59.385)	75.710 (59.888)	-18.102*** (6.218)
Time on Personal Information tab (min)	12.577 (19.750)	13.141 (15.232)	12.201 (22.290)	-0.940 (2.106)
Time on Work Experience tab (min)	60.737 (131.506)	60.314 (75.855)	61.003 (156.815)	0.689 (13.716)
Time on Schooling/Training tab (min)	31.440 (145.448)	23.224 (37.449)	36.707 (183.864)	13.483 (15.217)
Time on Additional Information tab (min)	13.806 (19.692)	15.394 (22.283)	12.752 (17.740)	-2.642 (2.086)
Observations	394	150	244	394

Note: Stars indicate the statistical significance of differences in means across groups at various significance levels: * $p < .10$, ** $p < .05$, *** $p < .01$. Columns (4) and (5) display the attributes of recruiters based on whether they were sampled and hired using the RDS or the LinkedIn method. (a) The rows under this panel represent indicator variables for whether the recruiter opened the “Personal Information”, “Work Experience”, “Schooling/Training”, and “Additional Information” tabs. (b) Rows under this panel represent the expected time performing evaluations of job candidates, conditional on the recruiter opening the corresponding tab on the web page.

Table A5: Sample by stages of recruitment

Stages of recruitment	(1) RDS	(2) LinkedIn	(3) Total
Contacted (i)	453	321	774
Registered (ii)	322	180	502
Accepted (a+b)	247	153	400
a. Did not complete the experiment	3	3	6
b. Completed the experiment	244	150	394
b.1 Opened the personal info. tab in all	111	95	206
b.2 Opened the personal info. tab in some	111	52	163
b.3 Did not open the personal info. tab	22	3	25

Notes: (i) LinkedIn recruiters are those whom we identified via the social media platform: first we contacted them by email and then verified that they met the study eligibility requirements; (ii) registered agents include those who completed all the trials of the experiment, plus those who completed some trials, and those who did not complete any trials; (a) recruiters who did not complete any trials; and (b) recruiters who finished all trials.

B Study Materials

Table B1: Focus group about LGBTQ+ discrimination in the Ecuadorian labour market

<p>General objective: generate inputs for this research on discrimination against the LGBTQ+ population in the Ecuadorian labor market.</p> <p>Specific objectives</p> <ul style="list-style-type: none"> -To understand sectors, industries, and professional positions where people from the LGBTQ+ community work. -To study the perceptions of LGBTQ+ people concerning possible discrimination in recruitment processes and at the work environment.
<p>Number of participants: Nine LGBTQ+ people from Quito – Ecuador (six gays and three lesbians)</p>
<p>Focal group format: face-to-face gathering</p> <p>Length of the conversation: one hour and a half long</p> <p>Roles: two facilitators, one who asks the questions and one who systematizes the conversation. The audio of the focus group conversation was recorded with the consent of the participants.</p>
<p>Questions guideline</p> <ol style="list-style-type: none"> 1. The lack of employment is one of the most important concerns of Ecuadorians. Do you think that the access to adequate employment is even more difficult for the LGBTQ+ population? 2. Do you consider that there are sectors and/or occupations in the country where LGBTQ+ people are “naturally” hired? 3. Do you consider that there are some industries and/or occupations preferred by the LGBTQ+ community? 4. On the other hand, do you consider that there are some industries or occupations where there is discrimination in hiring LGBTQ+ people? 5. Do you know of any examples of discrimination in recruitment processes? How does such discrimination manifest itself? 6. In what way do you think recruiters form their impression of an applicant’s personality? 7. Do you think that in the selection process, it should be requested to specify sexual preference or gender identity? 8. What aspects of a person normally mentioned in a CV do you think reveal a person’s sexual orientation? 9. Do you consider that being part of the political militancy or activism in favor of LGBTQ+ rights are a revealing aspect of a person’s sexual orientation? 10. There are several types of micro-aggressions to people because of their sexual orientation other than heterosexual. Have you experienced any micro-aggression in personnel selection or work environment? Detail your experience. 11. Many people belonging to sexual minorities often choose not to disclose their situation for fear of rejection, reprisals, damage to personal relationships, safety or loss of social support. If applicable, to what degree do you try to keep your sexual orientation a secret from co-workers, immediate supervisor, other supervisors, subordinates, middle management and/or senior management? 12. Do you consider that there are wage gaps between people of different sexual orientation and heterosexuals? 13. How have you been made to feel “belittled” because of your sexual orientation or communication style?

Figure B1: Invitation email

Email #1: Invitation to the platform

Recibe un cordial saludo,

Te saludamos a nombre de FARO, un centro de investigación independiente ecuatoriano que se encuentra apoyando a una empresa internacional que está pronta a abrir sus actividades en el Ecuador y se encuentra buscando personal.

Nos ha sido referido por Michelle Baños una persona con amplia experiencia en talento humano y por eso queremos pedir tu colaboración en este proceso de selección. Este proceso tiene 2 etapas. La primera consiste en completar tu registro y una segunda que es revisar los perfiles preseleccionados.

Completar todo este proceso tomará alrededor de 3 horas.

Fase 1: conociendo a nuestros reclutadores

En esta primera fase vamos a pedirte que completes un cuestionario de información general sobre ti y tu experiencia. Te pediremos adicionalmente completar 3 preguntas específicas sobre el mercado laboral ecuatoriano y 2 tests que nos permitirán conocerte mejor.

Completa tu registro durante las 72 horas siguientes a recibir este correo, debido a que luego de ello caducará el link. Este es el enlace de registro:

<https://anovarecruiting.net/ecuador/registro/>

Fase 2: selección de perfiles

Una vez completado el registro, recibirás un enlace a tu correo que te llevará a la plataforma donde se realiza la selección de los postulantes. En el correo estarán las indicaciones necesarias para empezar con el proceso de selección. Revisa tu correo no deseado, ya que el correo podría llegar ahí.

Te pedimos analizar los 3 perfiles pre-seleccionados de candidatos/as para diversos puestos (10). Te recordamos que esta actividad será desarrollada por una única vez. Esta actividad no requiere dedicación exclusiva y se realizará de manera remota.

Una vez culminadas las 2 fases, reconoceremos tu tiempo de dedicación con un pago de USD20, que serán depositados vía transferencia bancaria. Además, te recordamos que puedes recibir un pago adicional de USD 5,0 por cada referido que complete las 2 fases.

Agradecemos tu interés para colaborar con nosotros en este proceso de búsqueda de perfiles adecuados.

Cualquier inquietud o comentario no dudes en escribirnos.

Atentamente,

FARO

Email #1: Invitation to the platform

Greetings,

We greet you on behalf of FARO, an Ecuadorian independent research center that is supporting an international company that is about to open its activities in Ecuador and is looking for personnel.

We have been referred by Michelle Baños, a person with extensive experience in human talent and therefore we would like to ask for your collaboration in this selection process. This process has 2 stages. The first one is to complete your registration and the second one is to review the pre-selected profiles.

The whole process will take about 3 hours to complete.

Phase 1: getting to know our recruiters

In this first phase we will ask you to complete a general information questionnaire about yourself and your experience. We will additionally ask you to complete 3 specific questions about the Ecuadorian labor market and 2 tests that will allow us to get to know you better.

Please complete your registration within 72 hours of receiving this email, because after that the link will expire. This is the registration link:

<https://anovarecruiting.net/ecuador/registro/>

Phase 2: profile selection

Once the registration is completed, you will receive a link to your email that will take you to the platform where the selection of the applicants is made. The email will contain the necessary instructions to start the selection process. Check your junk mail, as the email may arrive there.

We ask you to analyze the 3 pre-selected profiles of candidates for various positions (10). We remind you that this is a one-time activity. This activity does not require exclusive dedication and will be carried out remotely.

Once the 2 phases are completed, we will recognize your time of dedication with a payment of USD20, which will be deposited via bank transfer. In addition, we remind you that you can receive an additional payment of USD 5.0 for each referral that completes the 2 phases.

We appreciate your interest in collaborating with us in this process of searching for suitable profiles.

If you have any questions or comments, please do not hesitate to contact us.

Yours sincerely,

FARO

Figure B2: Participation reminder

Email #2: Participation remainder

Estimado,
Ante todo, un cordial saludo,

Nos interesa tu perfil por lo que te hemos preseleccionado para la posición de Analista de Recursos Humanos.

Te recordamos que para continuar con el proceso necesitamos que sigas las instrucciones detalladas en el correo anterior, tendrás un nuevo plazo de 24hs para hacerlo. Si por alguna razón no puedes cumplir con este plazo pero te interesa la búsqueda por favor avísanos respondiendo este mismo correo.

De terminar el proceso, la remuneración será de US\$ 20 (veinte dólares americanos).

Cualquier inquietud o comentario no dudes en escribirnos respondiendo este mismo correo.

Atentamente,
Anova Policy Research

Email #2: Participation remainder

Greetings,

We are interested in your profile so we have shortlisted you for the position of Human Resources Analyst.

We remind you that to continue with the process we need you to follow the instructions detailed in the previous email, you will have a new term of 24hs to do so.

If for any reason you can not meet this deadline but you are interested in the search please let us know by responding to this same email. If for any reason you can not meet this deadline but you are interested in the search please let us know by replying to this same email.

If you finish the process, the remuneration will be US\$ 20 (twenty US dollars).any questions or comments do not hesitate to write to us by replying to this same email.

Sincerely,
Anova Policy Research

Figure B3: LinkedIn post (Panel A)

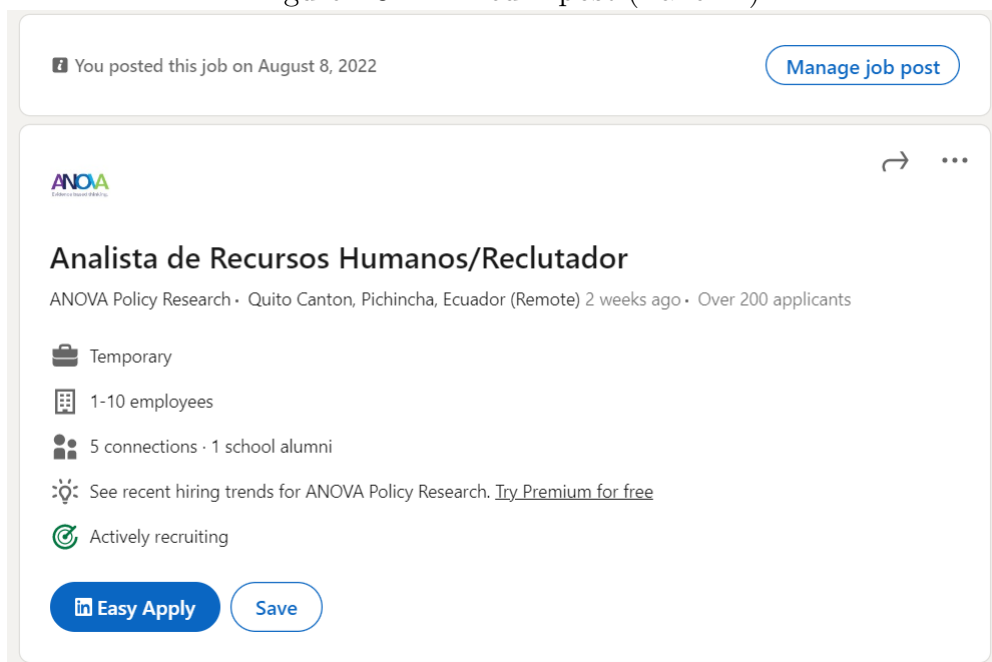


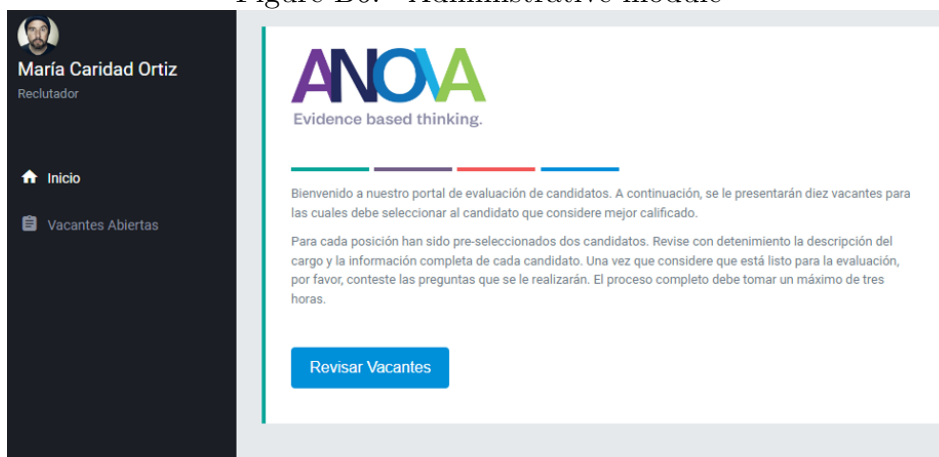
Figure B4: LinkedIn post (Panel B)

Spanish	English
About the job <p>Para una empresa consultora internacional, estamos en la búsqueda de analistas de recursos humanos y/o reclutadores de talento con experiencia trabajando en el mercado laboral de Quito, para trabajar en el proceso de selección, reclutamiento y análisis de remuneración de personal.</p>	About the job <p>We are looking for Human Resources analysts and/or HR recruiters with experience in the Quito labor market, to work in a selection and hiring process and salary analysis for an international consultancy.</p>
Requisitos: <p>Graduado/a en carreras de Recursos Humanos, Relaciones Laborales, Administración, Psicología, Sociología o afines.</p> <p>2 años de experiencia (mínimo) trabajando en el área de recursos humanos en el Área Metropolitana de Quito (preferible).</p> <p>Conocimiento sobre la legislación laboral ecuatoriana.</p>	Requirements <p>Bachelor's degree in Human Resources Specialist, Administration, Psychology, Sociology, or other related fields.</p> <p>At least 2 years of experience working in human resources in the Metropolitan area of Quito.</p> <p>Knowledge of Ecuadorian legislation.</p>
¿Qué harás? <p>La tarea consiste en analizar perfiles de candidatos/as para distintas posiciones y hacer una recomendación de contratación y salarios. Los perfiles han sido previamente pre-seleccionados y serán provistos por la empresa.</p> <p>La dedicación máxima para esta tarea es de 3 horas. La tarea puede realizarse en cualquier horario y de manera remota dentro del plazo disponible.</p> <p>La tarea será realizada por una única vez, no requiere dedicación exclusiva.</p> <p>Se ofrece un reconocimiento económico atractivo dada la carga de trabajo requerida.</p>	What you will do? <p>The task consists in analyzing candidates' profiles for distinct vacancies and making a hiring and salary recommendation. The profiles were pre-selected and will be provided by the company.</p> <p>The task will take 3 hours maximum. The task can be performed at any time and remotely within the established deadline.</p> <p>The task will be performed on a one-time basis and does not require exclusive dedication.</p> <p>Attractive financial recognition is offered given the workload required.</p>

Figure B5: Invitation email to the platform

<p>Recibe un cordial saludo,</p> <p>Te saludamos a nombre de ANOVA y FARO, quienes estamos apoyando a una empresa internacional que está pronta a abrir sus actividades en el Ecuador y se encuentra buscando personal. Por esta razón, estamos en la búsqueda de analistas de recursos humanos y/o reclutadores de talento con experiencia en el mercado laboral de Quito para trabajar en el proceso de selección, reclutamiento y análisis de remuneración de personal.</p> <p>Queremos agradecerte por tu interés para participar como Analista de Recursos Humanos. Nos interesa tu perfil y te hemos preseleccionado para apoyarnos en este proceso de selección.</p> <p>Este trabajo tiene 2 etapas. La primera consiste en completar tu registro y una segunda que es revisar los perfiles preseleccionados.</p> <p>Completar todo este proceso tomará menos de 3 horas.</p> <p>Fase 1: conociendo a nuestros reclutadores</p> <p>En esta primera fase vamos a pedirte que completes un cuestionario de información general sobre ti y tu experiencia. Te pediremos adicionalmente completar 3 preguntas específicas sobre el mercado laboral ecuatoriano y 2 tests que nos permitirán conocerte mejor.</p> <p>Completa tu registro durante las 72 horas siguientes a recibir este correo, debido a que luego de ello caducará el link. Este es el enlace de registro:</p> <p>https://anovarecruiting.net/ecuador/registro/</p> <p>Fase 2: selección de perfiles</p> <p>Una vez completado el registro, recibirás un enlace a tu correo que te llevará a la plataforma donde se realiza la selección de los postulantes. En el correo estarán las indicaciones necesarias para empezar con el proceso de selección. Revisa tu correo no deseado, ya que el correo podría llegar ahí.</p> <p>Te pedimos analizar los perfiles pre-seleccionados de candidatos/as para diversos puestos (10). Te recordamos que esta actividad será desarrollada por una única vez. Esta actividad no requiere dedicación exclusiva y se realizará de manera remota.</p> <p>El reconocimiento económico por realizar la tarea será de 30 USD que se realizará a través de una transferencia bancaria. Una vez completada la tarea, nuestros aliados de Faro se contactarán contigo para llevar a cabo el pago correspondiente.</p> <p>Agradecemos tu interés para colaborar con nosotros en este proceso de búsqueda de perfiles adecuados.</p> <p>Cualquier inquietud o comentario no dudes en escribirnos.</p> <p>Atentamente,</p> <p>ANOVA y FARO</p> <p>...</p>	<p>We send you our warmest greetings,</p> <p>We greet you on behalf of ANOVA and FARO, who are supporting an international company that is about to open its activities in Ecuador and is looking for personnel. For this reason, we are looking for human resources analysts and/or talent recruiters with experience in the labor market of Quito to work in the process of selection, recruitment and analysis of remuneration of personnel.</p> <p>We would like to thank you for your interest in participating as a Human Resources Analyst. We are interested in your profile and we have pre-selected you to support us in this selection process.</p> <p>This job has 2 stages. The first is to complete your registration and the second is to review the pre-selected profiles.</p> <p>This whole process will take less than 3 hours to complete.</p> <p>Phase 1: getting to know our recruiters</p> <p>In this first phase we will ask you to complete a general information questionnaire about yourself and your experience. We will additionally ask you to complete 3 specific questions about the Ecuadorian labor market and 2 tests that will allow us to get to know you better.</p> <p>Please complete your registration within 72 hours of receiving this email, because after that the link will expire. This is the registration link:</p> <p>https://anovarecruiting.net/ecuador/registro/</p> <p>Phase 2: profile selection</p> <p>Once the registration is completed, you will receive a link to your email that will take you to the platform where the selection of the applicants is made. The email will contain the necessary instructions to start the selection process. Please check your junk mail, as the email may arrive there.</p> <p>We ask you to analyze the pre-selected profiles of candidates for various positions (10). We remind you that this is a one-time activity. This activity does not require exclusive dedication and will be performed remotely.</p> <p>The economic recognition for performing the task will be 30 USD that will be made through a bank transfer. Once the task is completed, our Faro partners will contact you to make the corresponding payment.</p> <p>We appreciate your interest in collaborating with us in this process of searching for suitable profiles.</p> <p>If you have any questions or comments, please do not hesitate to contact us.</p> <p>Yours sincerely,</p> <p>ANOVA and FARO</p> <p>...</p>
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Figure B6: Administrative module



Welcome to our candidate evaluation portal. Below, you will be presented with ten vacancies for which you should select the candidate you feel is best qualified.

For each position, two candidates have been pre-screened. Please carefully review the job description and complete information for each candidate. Once you feel you are ready for the evaluation, please answer the questions you will be asked. The entire process should take a maximum of three hours.

Figure B7: Vacancies

Job Title	Company	Location	Candidates
Contador CPA	Firma de contadores	Quito	2
Asesor Comercial	Empresa sector alimenticio	Quito	2
Bodeguero	Empresa sector alimenticio	Quito	2
Ingeniero en Sistemas	Empresa tecnológica	Quito	2
Operador de Call Center	Empresa de servicios	Quito	2
Supervisor de Producción (Manufactura)	Empresa de ingeniería	Quito	2
Auxiliar Servicios Generales - Limpieza	Empresa constructora	Quito	2
Desarrollador de Software	Empresa tecnológica	Quito	2
Jefe Técnico de Proyectos	Empresa de tecnología	Quito	2
Técnico de Mantenimiento	Empresa de ingeniería	Quito	2

Figure B8: Job description

Contador CPA
Firma de contadores - Quito

Spanish	English
Objetivo general	General objective
Profesional de administración, finanzas, contaduría para tareas en la empresa.	Professional in administration, finance, and accountancy
Funciones específicas	Specific functions
Conocimientos técnicos	Technical knowledge
Formación	Education

Figure B9: Synthetic CVs

Candidatos Preseleccionados Pre-selected candidates

Juliana Orbe

Calle, S54D, Guamani
Teléfono: 0964564560
Email: orbedavid@outlook.es

Street, S54D, Guamani
Phone number: 0964564560
Email: orbedavid@outlook.es

- Información Personal Personal information
- Formación Education
- Experiencia Laboral Work experience
- Información Adicional Additional information

Diana Mendoza

Guachapala 386, Chilibulo
Teléfono: 0985672341
Email: dmendo1994@gmail.com

Guachapala 386, Chilibulo
Phone number: 0985672341
Email: dmendo1994@gmail.com

- Información Personal Personal information
- Formación Education
- Experiencia Laboral Work experience
- Información Adicional Additional information

Proceed to select the final candidate
Proceder a seleccionar postulante definitivo

Figure B10: Synthetic CVs of the LGBTQ+ exercise

Candidatos Preseleccionados Pre-selected candidates

Esteban Rosero

Av. Florencia S4-170 y Av. Interoceánica, Florencia. La Pradera. Cumbaya
Teléfono: 0940919364
Email: eroseroart@gmail.com

Fecha de nacimiento: 4/12/96
Sexo: Hombre
Nacionalidad: Ecuatoriano
Residencia actual: Av. Florencia S4-170 y Av. Interoceánica
Indica pertenecer a alguna minoría: No pertenece

Date of birth: 4/12/96
Sex: Male
Nationality: Ecuatorian
Address: Av. Florencia S4-170...
Belongs to a minority: Does not belong

- Información Personal Personal information
- Formación Education
- Experiencia Laboral Work experience
- Información Adicional Additional information

Marcelo Acosta

Calle Ricardo Descalzi del Castillo, Urbanización El Condado. Sector El Condado.
Teléfono: 0919394620
Email: mfacos@hotmail.ec

Fecha de nacimiento: 5/20/97
Sexo: Hombre
Nacionalidad: Ecuatoriano
Residencia actual: Calle Ricardo Descalzi del Castillo, Urb...
Indica pertenecer a alguna minoría: Comunidad LGTBI

Date of birth: 5/20/97
Sex: Male
Nationality: Ecuatorian
Address: Av. Street Ricardo Descalzi
Belongs to a minority: LGTBI Community

- Información Personal Personal information
- Formación Education
- Experiencia Laboral Work experience
- Información Adicional Additional information

Figure B11: Selection and evaluation of candidates

Selección definitiva para el cargo

¿Cuál es su candidato principal para ocupar esta vacante?

Juliana Orbe Diana Mendoza

En una escala del 1 al 10 cómo considera que cada candidato se adecua a los requerimientos del empleo

Juliana Orbe Diana Mendoza

¿Cuál es el salario mensual que le asignaría al candidato seleccionado de acuerdo a su perfil?

(coloque el salario en dólares, solo números, sin símbolos, sin puntos)

¿Cuál es el salario mensual que le asignaría al otro candidato de acuerdo a su perfil?

(coloque el salario en dólares, solo números, sin símbolos, sin puntos)

Por favor comente en qué criterio ha basado su selección

Final position selection

Who is your candidate to fill this vacancy?

Juliana Orbe Diana Mendoza

On a scale of 1 to 10, how well do you feel each candidate matches the job requirements?

Juliana Orbe Diana Mendoza

What is the monthly salary you would assign to the selected candidate according to his/her profile?
(put the salary in dollars, only numbers, no symbols, no dots)

What is the monthly salary you would assign to the other candidate according to his/her profile?
(put the salary in dollars, only numbers, no symbols, no dots)

Please comment on what criteria you have based your selection

Figure B12: Synthetic CVs of the gender exercise

Teresa Arellano

Ricardo Sáenz N45 y Alberto Coloma. Cumbres del Moral. Sector Monteserrín
Teléfono: 09527672876
Email: arellanotere@gmail.com

Información Personal
Personal information

Fecha de nacimiento: 6/8/92	Date of birth: 6/8/92
Sexo: Mujer	Sex: Female
Nacionalidad: Ecuatoriana	Nationality: Ecuadorian
Residencia actual: Ricardo Sáenz N45 y Alberto Monteserrín	Address: Ricardo Sáenz N45 y Alberto Monteserrín
Indica pertenecer a alguna minoría: No indica	Belongs to a minority: Does not indicate

Formación
Education

Experiencia Laboral
Work experience

Información Adicional
Additional information

Sebastian Nuñez

Calle Polonia N 31-142 y Vancouver. La Pradera
Teléfono: 0967265447
Email: snunez@gmail.com

Información Personal
Personal information

Fecha de nacimiento: 3/6/93	Date of birth: 3/6/93
Sexo: Hombre	Sex: Male
Nacionalidad: Ecuatoriano	Nationality: Ecuadorian
Residencia actual: Calle Polonia N 31-142 y Vancouver	Address: Street Polonia N 31-142 y Vancouver
Indica pertenecer a alguna minoría: No indica	Belongs to a minority: Does not indicate

Formación
Education

Experiencia Laboral
Work experience

Información Adicional
Additional information

Figure B13: Synthetic CVs of the nationality exercise

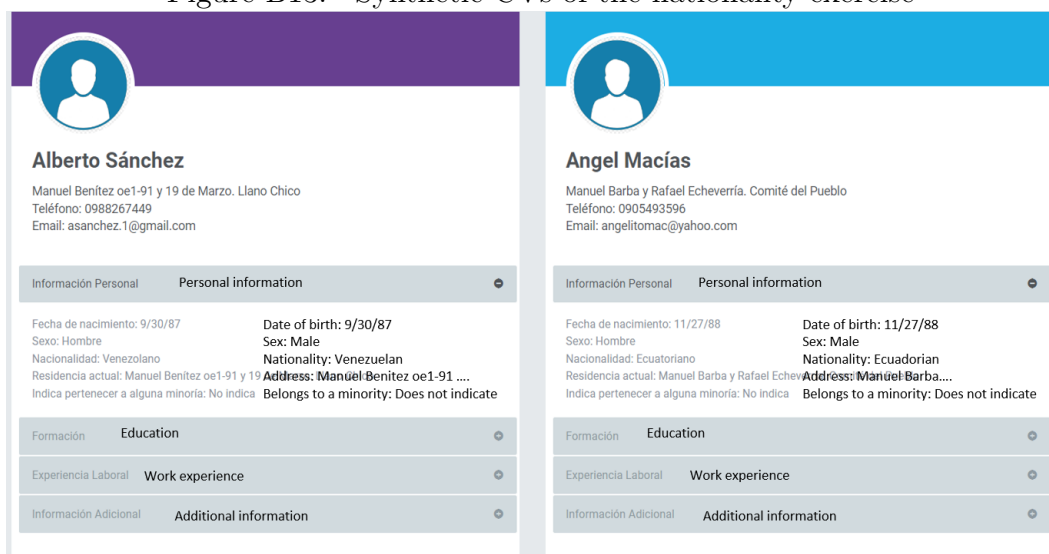


Table B2: Grupo FARO’s activities for the contact and follow-up of recruiters and their referrals

Activity	Details
Mapping of 47 “seed recruiters” in Quito	Recruiters meet the following requirements: 1. Minimum 2 years of experience in hiring process. 2. Experience with HR in different areas of work.
Definition of 13 “seed recruiters” for the start of the exercise	The selection of the first 13 seeds responded to the availability of the people, their field of experience, as well as the capacity to provide referrals for the research.
Definition of a follow-up and payment mechanism	Based on the previous activities, FARO made: • 1 recruiters follow-up database • 1 payment follow-up database • 1 matrix for the follow-up of each “tree” generated by each “seed recruiter”

On June 22, 2020 FARO did the first contact, follow-up, and payment of the first recruiters. The process consisted of two sampling methodologies: (1) “snowball” or RDS methodology and (2) through LinkedIn. The exercise ended on September 9 with a total of 394 recruiters.

In the first stage, FARO contacted the recruiter to share the details of the process. Then, the registration link was shared with the participants and once registered, ANOVA sent the log-in credentials to each recruiter’s email address. Afterward, the FARO team carried out the corresponding follow-up. ANOVA, through its tracking

matrix, notified the FARO team, who completed the process to make the corresponding payment.

In the second stage, ANOVA posted a georeferenced announcement on LinkedIn. The ANOVA team reviewed the application folders and chose the individuals to continue in the process. With the data provided by ANOVA, the FARO team communicated with the recruiters for follow-up. At this stage, no referrals were used.

Thus, FARO's work concentrated on contacting and following up with recruiters and their referrals, making the respective payments, updating the follow-up matrices, and transferring the payment.

C Various groups and LGBTQ+ evaluation interaction

Table C1: Gender-based Discrimination against LGBTQ+ (Interactions)

	(1) Callback	(2) Fit for the job	(3) Log of wages
1. Candidates Gender:			
Discrimination Coeff.=1	0.1709*** (0.0503)	0.1930*** (0.0739)	0.0081 (0.0106)
Male	0.1238*** (0.0318)	0.1862*** (0.0628)	0.0161 (0.0189)
Discrimination Coeff.=1 × Male	-0.2477*** (0.0636)	-0.3506*** (0.0894)	-0.0056 (0.0135)
Observations	2222	2222	2222
Model specification:			
Candidates' characteristics	YES	YES	YES
Indicator for sampling method (a)	YES	YES	YES
Indicators for tabs opened (b)	YES	YES	YES
Recruiters' Fixed Effects	NO	NO	NO
Clusterized Standard Errors	YES	YES	YES

Note: The values in the table are OLS coefficients that identify the mean difference in the outcomes associated to candidates that belong to a minority and the ones that do not. All regressions include observations for trials where vignette didn't appeared. Column titles show the dependent variable of the OLS regression, while the panels numbered 1 to 10 represent the subsamples selected for the heterogeneity analysis. Furthermore, (a) implies that the covariate that indicates if recruiter recollection source was LinkedIn or RDS was included, whereas (b) implies that the "opened tab" indicator was included. * $p < .10$, ** $p < .05$, *** $p < .01$.