

# Discrimination Against Workers From Slums: What Is Its Extent, What Explains It, and How Do We Tackle It?

Wladimir Zanoni  
Paloma Acevedo  
Giulia Zane  
Hugo Hernández

Housing and Urban  
Development Division

Country Office in Ecuador

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Wladimir Zanoni\*  
Paloma Acevedo\*  
Giulia Zane\*\*  
Hugo Hernández\*\*\*

\* Inter-American Development Bank

\*\* World Bank

\*\*\* ANOVA Policy Research

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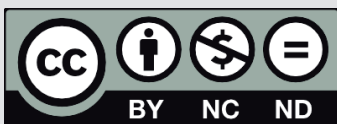
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# Abstract\*

Nearly 120 million people reside in urban slums in Latin America and the Caribbean, where precarious housing and socioeconomic circumstances showcase deep inequality. This paper investigates whether labor market discrimination has any bearing on the reality of fewer formal jobs and lower wages with which slum dwellers must contend. We implemented a field experiment in Buenos Aires, Argentina, in which we hired human resource recruiters and tasked them with evaluating several pairs of similarly productive job applicants. Out of every 10 applicants, the recruiters chose slum dwellers 4.2 times and other applicants 5.8 times. They also evaluated slum dwellers as less fit for the vacancies and offered them lower wages (nearly 2 percent lower). While taste-based discrimination dominates the hiring result, statistical discrimination does so with regard to wages. We find that recruiters' agreeableness predicts discrimination. An intervention showed recruiters the discrimination rate in Buenos Aires, after which they began favoring slum dwellers.

**Keywords:** Discrimination, Labor markets, Slums, Latin America, Field Experiments.

**JEL Codes:** J7, J71, J78, O1, O18, O54, R23

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# 1. Introduction

Currently, nearly 1 out of every 5 residents of Latin American and the Caribbean (LAC) cities (a total of 120 million people) live in an urban slum (ECLAC, 2020). People living in slums are usually poor, lack access to essential public services, do not have formal property rights, reside in unstable housing, and face high crime rates and social problems (Bonfiglio and Marquez, 2017). Slum dwellers are also subject to negative stereotyping and prejudice, which imposes transaction costs on them, as they pay a societal cost to engage in value transactions in several markets<sup>1</sup>.

Discrimination against slum dwellers in LAC's labor markets (what we call “urban discrimination” in this paper) is particularly costly, because it is an invisible barrier limiting those persons' access to the formal jobs that could enable them to break the poverty cycle (Bóo and Trako, 2009). Urban discrimination is subtle and often inadvertent on the part of employers, and the general public is generally unaware of it. Moreover, compared to other more-conspicuous forms of discrimination (for example, based on race or gender), LAC government officials are less mindful of the prevalence of urban discrimination and (needless to say) of how to deal with it. Yet this form of discrimination limits the effectiveness of public policies that seek to reduce inequality and promote social mobility by fostering labor market participation. With a sizable number of people in LAC still living in slums, urban discrimination might reduce overall economic welfare, making measuring it, isolating its predictors, and finding ways to address it all economically meaningful.

This paper implements a field experiment to measure the extent of urban discrimination in hiring and wage settings in a major LAC city's labor market. Moreover, it studies how hiring decisions correlate to the personal characteristics of the human resource recruiters (HRRs) who make those decisions. Finally, it explores whether a behavioral intervention that makes HRRs aware of the prevalence of urban discrimination in their local labor market affects their discriminatory behaviors.

We hired 267 HRRs in Buenos Aires, Argentina. After completing a registration survey, the HRRs performed an online work assignment simulating actual job conditions. In that assignment, we tasked HRRs with evaluating 10 pairs of otherwise observationally equivalent fictitious job candidates for vacancies that we artificially created. One of the job applicants would reside in an urban slum (a *villa* in Argentina) and the other in a formal neighborhood (a *barrio*). HRRs selected their preferred candidate in each pair, assessed the candidates concerning their level of “fit for the job,” and suggested a salary for each. Finally, before the ninth trial, we presented the HRRs with a pop-up

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<sup>1</sup> There are initiatives underway aimed at tackling deeply rooted prejudices against slum dwellers in LAC. See, for instance, (Torres, 2012) and (Hernández and López, 2011).

message showing the extent of urban discrimination in the city to study how information could affect their choices.

Analyzing the data from the field experiment (4,170 observations), we find that urban discrimination in selection (or hiring the candidate choice of the HRRs) is substantial. The recruiters chose slum residents 42 percent of the time and barrio residents 58 percent of the time (by design, in the absence of discrimination, each candidate in a pair would have had a 50 percent chance of being selected). We also find evidence of wage discrimination. The wages that recruiters stated they would offer slum dwellers if they were to hire them were, on average, lower than the wages offered to candidates from barrios. However, the mean difference between the two wages was relatively small (2 percent), consistent with small differences in productivity, measured as an applicant's being fit for the job, perceived by the HRRs across pairs of similarly skilled candidates. In the market, one would expect the wage differences to be even bigger, because, as the first result indicates, more villa residents will get no offers than barrio residents and thus might end up accepting lower-quality jobs.

We also find that most of the HRRs' characteristics measured in the study did not predict discrimination in hiring when included in multivariate linear regression models. Yet some attributes of the HRRs were non-linearly correlated with discrimination. We find that, interestingly, more agreeableness (i.e., more capacity to "put other people's needs above their own") consistently predicts less discrimination when included linearly in regression models. A unit change in the agreeableness score (which ranges from 1 to 36) lowers the likelihood that an HRR is a recurrent discriminator by approximately 8 percent.

The results from the evaluation of the behavioral intervention (i.e., showing recruiters the hiring discrimination rate in the local market in a pop-up message) suggest that this practice reduced urban discrimination among the HRRs in our sample. After implementing the intervention, recruiters switched their pattern of decisions and started "discriminating" against other candidates at a rate similar to that of their discrimination toward slum candidates before the intervention. The intervention changed the discrimination rate by approximately 30 percent in favor of slum dwellers. The wage discrimination results trend in the same direction but are considerably smaller. After we exposed the HRRs to the pop-up message, they began offering comparatively better wages to residents of villas than those offered to residents of barrios (the effect of the intervention is a 3 percent increase in wages).

Our field experiment is similar to a correspondence study of the type pioneered by Bertrand and Mullainathan (2004) where researchers submit fake job applications with similarly skilled candidates for actual vacancies, with one of the candidates belonging to a minority group. Correspondence studies of this type have been extensively

replicated<sup>2</sup>. Because we hired HRRs to evaluate fake job offers we created, instead of waiting for actual vacancies to arise, our methodology closely resembles that of a laboratory experiment, and thus our study fits better within the class of studies called variously “Goldberg paradigm” (Bertrand and Duflo, 2017a), “Simulated Personnel Decision” (Neumark, 2018a), and “factorial surveys” (Rossi, 1979), in which recruiters participate in experiments where they are asked to evaluate candidates’ employability just as they would in a correspondence study. To address potential concerns of external validity, we used 2019 household survey data from the City of Buenos Aires to craft the fake vacancies, so that they were in occupations and sectors in which slum dwellers work. In addition, we recruited real HRRs with experience in the local market.

Our findings contribute directly to the growing body of rigorous evidence documenting urban discrimination in hiring using field experiments (Tunstall et al., 2014; Carlsson, Reshid and Rooth, 2018; L’Horty, Bunel and Petit, 2019; Bunel, L’Horty and Petit, 2016; Phillips, 2020; Carlsson and Eriksson, 2022; Diaz and Salas (2020)). This stream of research seeks to better understand how job applicants’ distance to jobs and neighborhood affluence separately bear on the discriminatory behaviors of employers. We depart from that objective by matching neighborhood characteristics and distances to jobs within each trial of the experiment. Our results suggest that employers discriminate against slum dwellers even beyond those two characteristics.

Because we measure wage offers (a proxy for willingness to pay) and capture assessments of fit for the jobs (a proxy for expected job productivity), we can study discrimination beyond hiring<sup>3</sup>. Our research contributes experimental evidence to the extant literature on how discrimination in general and urban discrimination, in particular, affect those different outcomes.

Analysis of recruiter-level correlates of labor market discrimination has heretofore been largely unexplored. Hiring HRRs enabled us to scrutinize their characteristics and better understand how those are associated with their discriminatory behaviors. Our work contributes to new research seeking to open the black box of relationships between recruiters’ characteristics and their discriminatory practices. This evidence

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<sup>2</sup> The empirical literature using correspondence studies is vast. See, for instance, the metanalyses in Quillian et al. (2017) and Lippens, Vermeiren and Baert (2023); Bertrand and Duflo (2017a) and Neumark (2018a) are comprehensive reviews, and Verhaeghe (2020) provides a typology of such studies. There is research on hiring discrimination in countries as diverse as Canada (Oreopoulos (2011)), China (Maurer-Fazio (2012)), and Mexico (Arceo-Gomez and Campos-Vazquez (2014)), and with reference to several prejudiced attributes, such as age (David, Ian, and Button (2019); Burn et al. (2022)), length of unemployment spells (Kroft, Lange and Notowidigdo (2013)), and gender (Haoran He and Han (2023)), just to cite a few papers recently published in top economic journals. A recent study of racially motivated discrimination in the USA is Kline, Rose, and Walters (2022).

<sup>3</sup> The widespread evidence of hiring discrimination from correspondence studies connects indirectly with the theoretical foundations in the economics of discrimination, which were developed to explain how discrimination affects wage-setting behaviors (Becker, 1957; Charles and Guryan, 2008).

deepens the understanding of urban discrimination from the “demand side” of the market.

New field experiments have begun to test the effectiveness of interventions to address discrimination (Alesina et al., 2018; Homrighausen and Lang, 2019; Alesina, Ferroni and Stantcheva, 2021). Our paper is among the first with the twin purposes of measuring discrimination and testing for the effectiveness of an intervention to tackle the phenomenon. We contribute to the recent literature by providing insights on how intervening with active public policies can reduce discrimination.

## **2. Background: Urban Slum Dwellers in Buenos Aires**

Latin America and the Caribbean (LAC) have experienced rapid population growth and urbanization in recent decades. The population in urban areas has almost quintupled (from 109 million in 1960 to 529 million in 2020) and in 2020 it represents 81 percent of the region’s total population (vs. 49 percent in 1960). This has brought visible changes to urban settings. The increasing demand for urban services has resulted in deficits related to the provision of housing services and, in turn, the emergence of informal neighborhoods and unregulated settlements. About a fifth of the LAC urban population lived in slum households in 2018.

In 2019, there were 340 urban slums in Buenos Aires, Argentina, where approximately 235,000 people lived. Residents of Buenos Aires refer to these slums as “villas.” Villas are urban settlements where dwellers have informal property rights, rely on precarious access to city services, and live in crowded housing conditions. The unequal distribution of urban resources, public goods, and services between residents of villas and those in other areas of Buenos Aires drives the strong contrast between wealth and social deprivation in this city.

Argentina replicates the pattern in LAC of rapid urbanization and the emergence of informal settlements. According to the 2016 National Survey of Low-Income Neighborhoods (RENABAP), there are 4,416 low-income neighborhoods in Argentina in which approximately 4 million people live. They are distributed between shantytowns or villas and unregulated settlements or barrios. The former constitutes around 16 percent of the informal neighborhoods, and their population density is 28,351 inhabitants per km<sup>2</sup>, whereas the latter represents 84 of such neighborhoods and their population density is 7,269 inhabitants per km<sup>2</sup>. In addition to the densely populated characteristic of villas, residents of these settlements face unfavorable socioeconomic conditions compared to dwellers of formal areas (Bonfiglio and Marquez, 2017).

Living in these settlements limits access to urban benefits and exposes individuals to a high risk of social exclusion. The benefits inhabitants can access are further limited if urban discrimination exists, because their prospects for productive incorporation into the labor market and social mobility are thus reduced.

### **3. Description of the field experiment**

We designed a field experiment aimed at measuring the extent of discrimination, identifying factors that explained the discriminatory behaviors of the HRRs, and evaluating the impact of a behavioral intervention on those behaviors. We hired 267 HRRs with experience in the Buenos Aires labor market, whom we asked to perform a job assignment that was, in fact, a stealth field experiment<sup>4</sup>.

Each of the HRRs completed 10 rounds (or trials) of selection. In each round, they had to evaluate a pair of job applicants for an open vacancy. We asked them to select the candidate they considered most suitable for the vacancy, suggest wages they would pay each candidate if hired, and rate the fit of each candidate for the vacancy. Within each pair of applicants, we designed the job profiles to be similar in all observable characteristics except for the fact that one applicant resided in an urban slum (a *villa*) and the other in a comparable formal neighborhood (a *barrio*).

The literature has referred to this research design as a “Goldberg Paradigm,” “vignette field experiment,” and “Simulated Personnel Decision” (examples of this type of study include Bertrand and Duflo (2017b); Gaddis (2018); Neumark (2018b)). In this class of field experiments, there are short descriptions presented in surveys to respondents, who are asked to evaluate the situation in terms of the agreement, approval, and fairness Atzmüller and Steiner (2010). By systematically varying the characteristics or situations that form the vignette, researchers can separate out the effects of single situational attributes, enabling the determination of the influence of certain characteristics (Liebe et al., 2020; Atzmüller and Steiner, 2010). In the present study, the vignettes are represented by the profiles of fictitious job applicants. The main factor that we use to characterize the vignettes is the place of residency of the applicants: a *villa* or a *barrio*.

In measuring the extent of discrimination, our field experiment shared many attributes with correspondence studies, for both simulate actual market decisions under controlled experimental conditions. However, instead of sending pairs of applications of similar individuals in response to real job postings (as in a correspondence study),

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<sup>4</sup> The design with HRRs potentially addresses some of the ethical concerns that have been raised concerning audit and correspondence studies: we compensated the HRRs for their time, even though the provided profiles were fictional.

we hired real HRRs, paid them for their time, and carefully simulated the local labor market conditions. Consequently, we believe our study design was effective at eliciting the truthfully revealed preferences of the HRRs when they chose which candidates to hire and suggested what wages they should be paid<sup>5</sup>.

As part of the field experiment, we interviewed the HRRs when we hired them and collected data about their sociodemographic backgrounds, work experience, and knowledge of the Argentinian job market. In addition, we included a set of tests to profile their cognitive and noncognitive skills. The tests included the Wonderlic IQ test; we also leveraged socio-emotional characteristics (conscientiousness, agreeableness, openness, extroversion, neuroticism) through a self-esteem Rosenberg test and an OCEAN-based personality test. Using those data, we explore patterns of statistical associations between those characteristics and the HRRs' discriminatory behaviors in a regression framework. The materials employed in the experiment are detailed in the Appendix.

### **3.1. Recruitment of the human resource recruiters**

To recruit the HRRs, we published job postings on three online job search platforms in Argentina (LinkedIn, ZonaJobs, and Clarin). The postings stated that HRRs based in Buenos Aires were needed for a temporary job assignment, in which they would provide professional HR services to an international company<sup>6</sup>. We offered the recruiters a fixed amount of money for their services, equivalent to US \$25, to be paid as a direct transfer to their bank accounts.

The posting described the job eligibility requirements and the task. Applicants needed a university degree in human resources, labor relations, or a related field; two or more years of work experience in the Buenos Aires labor market; and knowledge of Argentinian labor law. The post explicitly mentioned the temporary nature of the job assignment and stated that completing the tasks would take a maximum of four working hours. Figure A1 shows the text of the job postings used (along with an English translation). The working conditions simulated as accurately as possible the actual hiring of HRRs by a real company. Once HRRs applied for the job, they received an

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<sup>5</sup> Different variants of the vignette study can be classified along a methodological spectrum that ranges from experimental laboratory studies to natural field experiments (Harrison and List, 2004). Within that taxonomy, our study is categorized as a framed field experiment for three reasons. First, our unfavorable target population is individuals who potentially engage in discriminatory behaviors; second, the decisions participants make are as close as possible to their day-to-day decisions in the relevant market; and third, the vignettes are designed to simulate profiles of real individuals.

<sup>6</sup> The company seeking workers was an actual market research firm that participated in the design, implementation, and analysis of this research study.

email with detailed instructions on registering for the job and a web hyperlink to do so (see Figure A2). The web hyperlink directed the recruiters to a web platform created to run the field experiment online.

The web platform was divided into two modules, a registration module, and a tasks module. In the registration module, the recruiters completed a questionnaire with personal background information and completed some skills and knowledge tests. After completing the registration module, the participants received a second email announcing they could proceed to the task and providing the information necessary to access the second module of the web platform (see Figure A3).

## **3.2. The trials of the experiment**

Once the HRRs accessed the second module of the online platform, they were told that they would be presented with 10 vacancies and, for each of them, they would have to choose the most qualified candidate from two who had been pre-selected. Figure A4 presents a screenshot of the home page of the platform, along with a translation of the text displayed. In the following screen, the HRRs were presented with 10 icons in a random order, one corresponding to each of the vacancies (Figure A5). The vacancies, selected to reflect the structure of the local labor market, were a corporate travel agent, an accounting assistant, a kitchen assistant, an executive chef, a professional accountant, a nurse practitioner, a system engineer, a telephone sales operator, a cleaning staff person, and a qualified electrician.

Once a recruiter clicked on a vacancy, they were provided with general information about the position and specific information about the two candidates. The information on the vacancies included general objective, specific functions, technical knowledge, and education requirements<sup>7</sup>. Table B5 reports the list of vacancies and the information provided for each of them.

The profiles of the “synthetic” candidates contained sociodemographic and personal information and documented education and work experience<sup>8</sup>. To ensure it was visible, the information about the place of residence (addresses located in either *barrios* or *villas*) was delivered by presenting the address of candidates in the general information section. Addresses were carefully picked so as to be easily identified as corresponding to either a *barrio* or *villa*. Living in a villa was signaled through mailing

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<sup>7</sup> While the general objective for each vacancy was already displayed, to access the rest of the information, recruiters had to click on specific icons. The addresses of the two candidates within each vacancy were always displayed (see Figure A6)

<sup>8</sup> With the vacancies, the general information section was already displayed, while to access the other pieces of information, the recruiter had to click on specific icons (Figure A7).



addresses as in Zanoni, Acevedo and Hernández (2022). The order in which each candidate appeared – on the left-hand or right-hand side of the page – was randomized.

As stated above, the synthetic profiles were designed so that candidates in each pair were equivalent in all observable characteristics except for the place of residence, either a *barrio* or a *villa*. Notably, the two neighborhoods chosen had similar sociodemographic characteristics, so the only difference between the two was their formal/informal settlement status. Table B6 reports the list of profiles and the information provided for each of them.

Once the recruiter evaluated the two applicants in a round, they were asked to select one to be hired. Moreover, they were asked to provide an evaluation score for each candidate according to their “fit for the job” requirements on a scale of 1 to 10. Finally, they were asked to suggest the wage remuneration for both candidates if either was to be hired (Figure A8).

After recruiters finished the exercise, they were contacted by the implementing agency in Argentina<sup>9</sup>. They were asked to sign a contract and provide banking information so that they could receive a payment for the job they had completed through a bank transfer of AR\$4.000<sup>10</sup> (approximately US\$25).

### **3.3. The synthetic profiles of the job applicants**

The implementing agency and the research team created the synthetic profiles used in this study. The original set of profiles was developed in the context of a previous correspondence study also implemented to measure urban discrimination in this market (Zanoni, Acevedo and Hernández, 2022)<sup>11</sup>. For the present study, a subset of 10 pairs of profiles was selected that reflected the most common occupations in the labor

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<sup>9</sup> This was a nonprofit organization that supported the research team in conducting focus groups with local authorities, HRRs, and other local nonprofit organizations. As a local counterpart, they contributed to the study design by ensuring that the recruitment and remuneration of the study participants (i.e., the HRRs) took into account the local context. They were also responsible for implementing the experiment on the ground and helped prepare the profiles of the synthetic job candidates.

<sup>10</sup> Argentinian pesos

<sup>11</sup> For that study, the researchers developed a set of synthetic profiles used to respond to nearly 4300 real job advertisements. These were constructed so that each duple could be considered equivalent in all observable characteristics, except the place of residence. To ensure this was the case, the profiles were assessed in focus groups that included local recruiters, academics, and local organizations. Zanoni, Acevedo, and Hernández (2020) provides a detailed account of this process.

market of interest according to the 2019 Household Survey of the City of Buenos Aires<sup>12</sup>.

Table B1 presents summary statistics for the areas in which the synthetic candidates resided and the rest of the city of Buenos Aires, based on the Annual Household Survey of the City of Buenos Aires (2019). This survey provides geographic information at the *comuna* level<sup>13</sup> and identifies whether a household is located in an informal area (*villa de emergencia*) or in a formal neighborhood, thus enabling us to approximately identify the areas of interest concerning the *villa* candidates. However, for the *barrio* candidates, we specified that the addresses assigned to the synthetic profiles were chosen from the poorest neighborhoods within the formal areas in their corresponding *comunas*. To proxy for the socioeconomic characteristics of such areas, we restricted the sample to the bottom half of the population in these areas, in terms of total household income. Table B1 shows that the socioeconomic characteristics of *villas* and *barrios* are quite similar – and different from the rest of the city – except for access to formal electricity, the share of migrants, and level of education.

We matched all those characteristics to the candidates (except for access to formal electricity<sup>14</sup>) in the attempt to control for observable characteristics at the neighborhood level. Moreover, we also computed commuting time from each of the addresses assigned to the candidate profiles to an address representative of an economically active location in Buenos Aires (downtown Buenos Aires)<sup>15</sup>.

Table 1 reports the main characteristics of the synthetic applicants by place of residence. The typical job applicant was 29 years old and had about 7 years of experience. Gender, age, and education (whether the applicant had a university degree) were balanced within each pair of synthetic applicants. Work experience, measured in months, was half a year higher for candidates residing in formal neighborhoods, while the same figure, reported in years, was slightly higher for slum dwellers<sup>16</sup>. The table also shows that commuting time was the same for *villa* and *barrio* candidates. On the other hand, when we look at the demographic characteristics of the neighborhood of residence, we see that *villa* candidates typically lived in poorer

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<sup>12</sup> Encuesta Anual de Hogares en la Ciudad de Buenos Aires.

<sup>13</sup> Comunas are the principal geographical administrative units within Buenos Aires; they are divided into smaller geographical units, such as neighborhoods. The city of Buenos Aires is composed of 15 comunas.

<sup>14</sup> Villas have access to electricity, but many connections to the network are informal. Lack of connection to a “formal” electricity network does not mean lack of access to electricity.

<sup>15</sup> The time, expressed in minutes, is that needed to travel via public transport to the workplace on a workday beginning at 7:00 a.m. Buenos Aires time (GMT -3).

<sup>16</sup> The discrepancy between the measures of work experience is the result of approximations and inconsistencies in some of the information reported in the “work experience” section of the candidate profiles.

areas in which education attainment was lower. In fact, unlike in Table B1, the variable considered here is gender specific to match better the expectations that recruiters might have had concerning the socioeconomic conditions of the synthetic applicants<sup>17</sup>.

**Table 1:** Characteristics of the Synthetic Candidates

Variable	(1) Villa	(2) Barrio	(3) Difference
Female	0.600 (0.516)	0.600 (0.516)	0.000 (0.231)
Age (years)	28.700 (2.214)	28.700 (2.214)	0.000 (0.990)
University degree or more	0.600 (0.516)	0.600 (0.516)	0.000 (0.231)
Work experience (months)	71.700 (22.598)	77.700 (20.122)	6.000 (9.569)
Work experience (years)	7.250 (1.875)	7.100 (1.912)	-0.150 (0.847)
Commuting time	43.400 (18.822)	44.900 (17.052)	1.500 (8.031)
Average income	19,661.139 (2,451.108) )	24,330.85 4 (2,253.85 0)	4,669.714*** (1,052.985)
Secondary school (%)	40.744 (12.645)	68.835 (22.609)	28.091*** (8.192)
Observations	10	10	20

*Note:* The table presents summary statistics of the main characteristics at the candidate level. In columns (1) and (2), standard deviations are reported in parentheses. In column (3), standard errors are reported in parentheses. *Work experience (months)* refers to the months of experience indicated in the “work experience” section of the candidate’s profile. *Work experience (years)* refers to the years of experience indicated in the “additional information” section of the candidate’s profile. The variables *Average income* and *Secondary school* are computed from the Annual Household Survey of the City of Buenos Aires (2019) and represent average household income and education level by gender and area of residence.

### 3.4. A behavioral intervention within the field experiment

<sup>17</sup> To account for the fact that the addresses chosen would likely suggest that the candidates came from poor areas, these variables were calculated by restricting the sample to the lowest income quartile in the city of Buenos Aires and the relevant age group, 24 – 35 years.

Each of the 10 trials of the full experiment corresponded to a specific vacancy occupation. We presented those occupations randomly to the HRRs so that only by chance did two recruiters review applicants for the same vacancy in the same order. After the recruiters had completed the eighth trial, we displayed a pop-up message about the prevalence of urban discrimination against *villa* dwellers in Buenos Aires. Figure A9 presents a screenshot of the message, along with its translation<sup>18</sup>. After seeing the message, the recruiters evaluated the final two sets of applicants. As we will show, using those data, we recover a before and after estimates of the effect of the pop-up message on the discrimination behavior of the recruiters. We also compute the effects of the pop-up message exploiting exogenous variation in the assignment to the intervention within occupations.

## **3.5. Data**

### **3.5.1. The recruiters**

As we explained above, as part of the registration process, the recruiters provided information on their demographic characteristics and work experience. Moreover, they took a short quiz that measured their knowledge of the Buenos Aires labor market and a longer questionnaire aimed at measuring their cognitive and socio-emotional skills: we measured the former through a Wonderlic IQ test and the latter through a self-esteem Rosenberg test and an OCEAN-based personality test.

Table 2 reports summary statistics for the main characteristics of the HRRs. As shown, 77 percent of the HRRs who participated in the experiment were women and their average age was 33 years. Most of them (89 percent) were born in Argentina, almost 80 percent had a university degree, and 48 percent had a degree in the field of human resources. Moreover, 75 percent of them were employed, and on average, they had 10 years of experience, of which 6 were working in human resources. Finally, the average proportion of correct answers on the knowledge quiz was 69 percent, which suggested a fair knowledge of the Buenos Aires labor market.

### **3.5.2. Data from the experiment**

A total of 267 HRRs participated in our study<sup>19</sup>. As the HRRs were completing the online experiment, the web platform generated a database registering their choices of applicants, along with their assessments of the fit of the candidates for the position

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<sup>18</sup> The message content was an objective measure of the prevalence of discrimination in the local labor market informed by previous research Zanoní, Acevedo and Hernández (2022).

<sup>19</sup> A total of 784 people responded to the job posts, of which 391 registered to participate. Finally, 267 individuals participated in the experiment, 12 in the pilot phase and the rest in the main experiment.

(measured on a scale of 1 to 10) and the salaries those candidates should receive (in that order). The platform then asked the HRRs, using an open-question format, to provide a rationale for their choice of candidate. Additionally, the order in which the recruiters reviewed the profiles of the candidates for the different vacancies was recorded, and information was collected on whether they clicked on the various tabs to access information about the candidates' demographic characteristics, education, and experience. Throughout the experiment, the platform recorded the time each recruiter spent on each tab and overall time.

**Table 2:** Recruiters' Characteristics

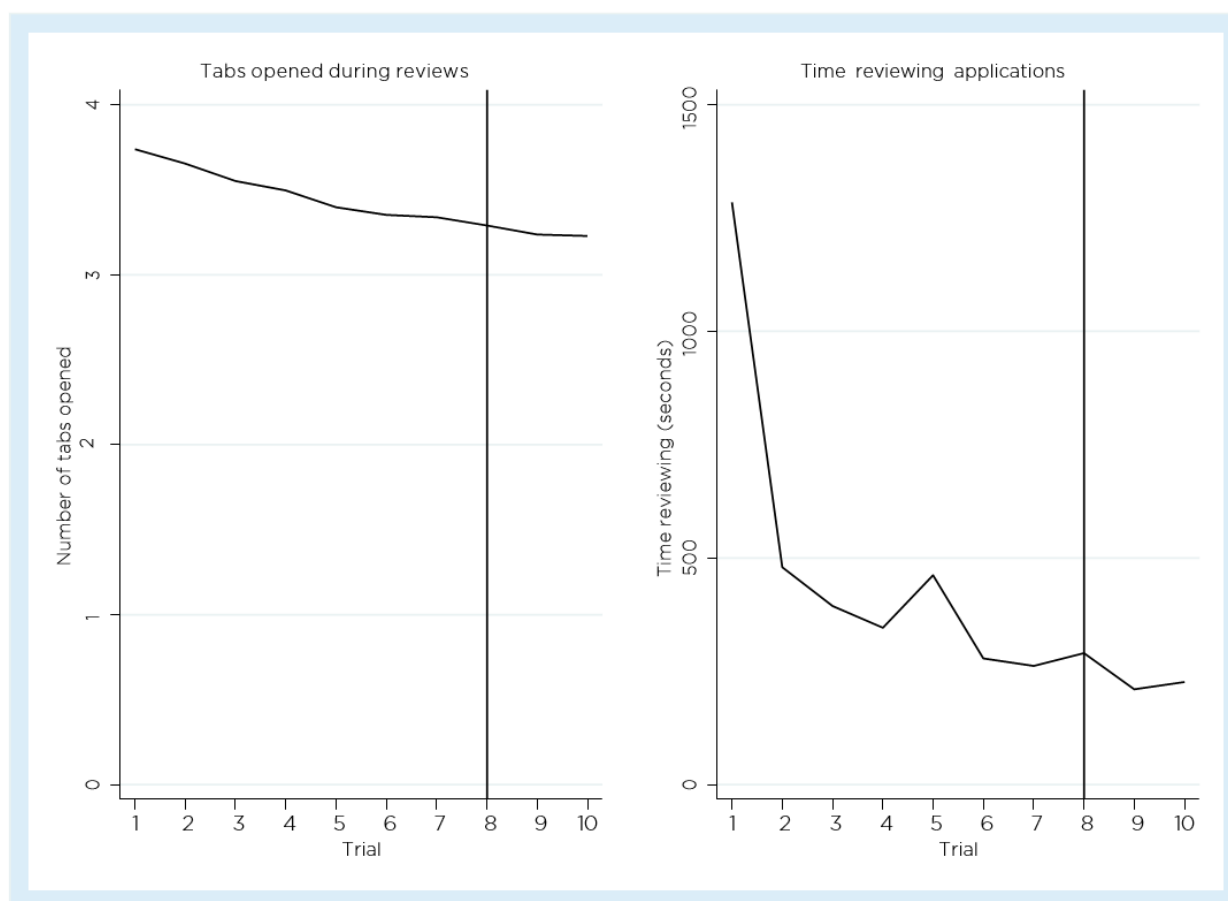
Variable	(1)
Female	0.775 (0.418)
Age (years)	33.225 (6.259)
Born in Argentina	0.895 (0.307)
Degree or more	0.798 (0.402)
Degree in HR	0.483 (0.501)
Employed	0.734 (0.443)
Total experience (years)	10.202 (5.930)
HR experience (years)	6.000 (4.527)
Correct answers (share)	0.689 (0.305)
Observations	267

*Note:* The table shows the mean and standard deviation (in parentheses) of the main characteristics at the HRR level. In the three cases in which the recruiter did not provide information about their date of birth, the variable *Age (years)* is replaced with the sample median. In the four cases in which recruiters did not provide information about their work experience, the variable *Total experience (years)* was calculated as the difference between the year of the experiment (2021) and their graduation year. “*Correct answers*” (*share*) refers to the proportion of knowledge questions the recruiter answered correctly.

As expected, the recruiters learned to complete the tasks more quickly as they progressed through the experiment rounds. Figure 1 shows the distribution of the number of web tabs they opened on the platform (on the right) when reviewing an application and the time they took to review each application (on the left). One first observation is that the number of tabs opened to review applications decreased from

nearly 4 at the beginning of the experiment to nearly 3 in the last trial. Moreover, we highlight that, as reflected in the graph on the right-hand side of Figure 1, on average, learning the mechanics of the experiment entailed repeating the first trial: the decline in time taken to review an application was very steep between the first and second trials. After the first trial, the time taken to review the applications decreased, though at a much lower rate.

**Figure 1:** Dynamics of Effort Exerted in Reviewing Applications



*Note:* The figure shows the average number of tabs opened by the HRRs (left panel) and the number of seconds spent reviewing each pair of profiles (right panel) in each of the 10 trials. The vertical line illustrates the separation between the first 8 “regular” trials and the last 2 trials in which the information experiment was conducted.

One can draw conclusions about the quality of the gathered data by inspecting the distribution of salaries offered to each applicant in the experiment. We expected the distributions to be both consistent with market rates and not too different from each other when it came to comparing *villas* and *barrios*. In fact, during the 10 trials of the experiment, the average monthly salary offered to the *barrio* residents was AR\$73,301 (S.D. = 31,570), while that offered to *villa* residents was AR\$72,609 (S.D. = 32,226). The average salary in the experiment amounted to 2.3 times the Argentinian minimum

wage at the time (AR\$32,000), which was within our expected value range, considering the type of positions we included in the experiment (half of the jobs posted required some college or more) and the fact that our study was concerned with jobs in the formal sector (where wages are higher than in the informal sector).

## 4. Empirical models

### 4.1. Measuring discrimination

Our primary outcomes are *callbacks*, a dummy variable indicating whether the synthetic candidate was selected; *log of wages*, the natural logarithm of the hypothetical wage that the HRR would recommend for each of the applicants if they were to hire them; and *fit for the job*, a variable measured on a scale of 1 to 10 indicating to what extent an applicant was a good match for the corresponding vacancy. The general equation we estimate is

$$y_{ipr} = \alpha + \beta Villa_{ip} + X_{ip}v + \delta_p + \epsilon_{ipr}$$

Where  $y_{ipr}$  is the outcome of interest for candidate  $i$  evaluated by recruiter  $r$  for position  $p$ ,  $\alpha$  is a constant term,  $Villa_{ip}$  denotes a dummy variable equal to 1 if the synthetic candidate resided in an informal neighborhood and 0 otherwise,  $X_{ip}$  is a vector of controls for synthetic-candidate-specific characteristics,  $\delta_p$  is a vector of fixed effects for the job vacancies (or positions), and  $\epsilon_{ipr}$  is the error term. Our parameter of interest is  $\beta$ . The estimated  $\beta$  provides the differences between the hiring rates of and wages offered to candidates residing in informal and formal neighborhoods, which provides our measure of discrimination. Standard errors are clustered at the HRR level to account for the correlation between choices made by the same HRR.

In our preferred specification, we control for the experience of the synthetic candidate, commuting time to the center of Buenos Aires, average income for the candidate gender and age group in the neighborhood, and share of people who completed secondary education for the candidate's gender and age group in the neighborhood.

## 4.2. Understanding associations between the HRRs' characteristics and their propensity to discriminate

We describe the observable attributes of the HRRs as measured when we hired them to examine patterns of associations between those attributes and their discriminatory behaviors. To do so, we first classify HRRs as either high or low discriminators. High discriminators are those who choose a *villa* dweller less than 3 times during the first 8 trials of the experiment<sup>20</sup>. Second, we test whether there were differences in the means of those attributes across the high discrimination dimension.

We next study the patterns of a statistical association between the HRRs' characteristics and their discriminatory behaviors in a multivariate setting. Specifically, using linear probability models, we regress the high discrimination outcome as a function of the HRRs' characteristics. To allow for the possibility of non-linear functional forms between the continuous covariates and the high discrimination outcome, we sequentially expand the polynomial series of those variables. We include those as covariates in the regression models (up to a fifth exponential series).

## 4.3. Estimating the effectiveness of the behavioral intervention

As we stated above, in our experiment, all the HRRs received a pop-up message after the eighth trial. To estimate the effect of that message on the HRRs' behaviors, we use a "before and after" approach: we compare the differences in the outcomes between *villa* and *barrio* candidates before and after the intervention. The identifying assumption of this estimator is that, in the absence of the intervention, the discrimination behavior in the pre-intervention period (trials one to eight) would provide a counterfactual to answer how the HRRs would have discriminated if not exposed to the pop-up message.

We remark that HRRs learned how to answer the questions in the experiment as it unfolded. This fact might raise concerns that learning through time could have affected the HRRs' discriminatory behaviors, leading to biased estimates using the before and after estimator. To mitigate that concern, we focus on differences in average outcomes

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<sup>20</sup> The results do not change considerably when we choose 1, 2, or 3 times as the threshold for classifying HRRs as high discriminators. Villa candidates were selected, on average, 3.29 times in the first 8 trials.



in the seventh and eighth trials (the observations in the comparison group) and compare those with the average of the outcome variables calculated over the ninth and tenth trials of the experiment (treated observations).

In addition to the before and after estimator, we produce within-occupation estimates of the pop-up message's effects on the HRRs' discriminatory behaviors. Remember that the order in which we presented the job occupations to the HRRs was random. Consequently, some HRRs randomly evaluated candidates applying for a specific vacancy before we exposed them to the pop-up message (i.e., between the first and eighth trials of the experiment), and others did so after being exposed to the message (i.e., in either the ninth or tenth trials). Note that such a process resembles a controlled experiment, where, within occupations, HRRs evaluating candidates in the pre-intervention period form a control group, and those HRRs assessing candidates for the same vacancy in the post-intervention period form a treatment group. Under the assumption that the last four trials of the experiment are similar in terms of HRRs' knowledge of (or familiarity with) the tasks they needed to complete, a within-occupation difference in the discrimination coefficients (between treated and untreated HRRs) recovers causal estimates of the effect of the pop-up message on their discriminatory behaviors.

## **5. Results: Discrimination against slum dwellers**

### **5.1. Discrimination in Hiring**

Recruiters were 16 percentage points more likely to choose candidates from a formal neighborhood than candidates from a slum (Table 3, panel A, model 1). This is equivalent to saying that in the first 8 trials of the experiment, *villa* candidates were chosen only 42 percent of the time, while *barrio* candidates were chosen 58 percent of the time. To interpret the results, note that absent discrimination, each candidate within a synthetic pair would have a 50 percent chance of being selected, that is, of receiving a "callback" from an HRR. This is the case because candidates within pairs are, by construction, potentially equally productive. Note also that even though there are no statistically significant differences in the estimates between all three models, adding controls (panel A, model 2) somewhat increases the magnitude of the coefficient, and including fixed effects at the vacancy level (model 3) decreases the magnitude of the discrimination coefficient to a value very close to that rendered by the unconditional model (model 1).

**Table 3:** Effects of Discrimination

	(1) Model 1	(2) Model 2	(3) Model 3
<b>A. Callbacks:</b>			
Discrimination coeff.	-0.159*** (0.021)	-0.187*** (0.032)	-0.164*** (0.037)
Mean Barrio	0.58	0.58	0.58
Observations	4170	4170	4170
<b>B. Log of wages:</b>			
Discrimination coeff.	-0.017*** (0.005)	-0.019** (0.009)	-0.013** (0.006)
Mean Barrio	11.11	11.11	11.11
Observations	4170	4170	4170
<b>C. Fit for the job:</b>			
Discrimination coeff.	-0.289*** (0.035)	-0.318*** (0.046)	-0.246*** (0.047)
Mean Barrio	7.84	7.84	7.84
Observations	4170	4170	4170
<b>Model specification</b>			
Applicants' characteristics	NO	YES	YES
Vacancy fixed effects	NO	NO	YES

*Note:* The values in the table are OLS coefficients that identify the mean difference in the outcomes associated to candidates from villas and barrios. All regressions include observations for the first eight trials of the experiment. In horizontal panel A, the dependent variables are dummy variables indicating whether the candidate was selected (“called back”) for the position. In panel B, the dependent variable represents the candidate’s fit for the job, measured on a scale of 1 to 10. In panel C, the dependent variable is the natural logarithm of the wage proposed for the candidates. Standard errors clustered at the recruiter level are reported in parentheses. *Applicants’ characteristics* include months and years of experience, commuting time, average income, and share who have completed secondary education. Significance levels: \*p < .10, \*\* p < .05, \*\*\* p < .01.

## 5.2. Differences in wage offers

The wages that recruiters offered to *villa* candidates were about 2 percent lower than those offered to candidates from *barrio* (Table 3, panel B). We interpret those wage differences as a value that overrules the HRRs’ hiring preferences for one of the

candidates. Note that the coefficient reflects the difference in answers to the question of how much the HRR would pay a candidate, conditional on having to hire that candidate when asked about *villa* and *barrio* applicants. The conditional statement “If you had to hire this candidate...” serves as a “forcing” mechanism inducing the HRR to think about wage differences between the two applicants, conditional on the fact that both individuals had the same probability of being hired (or “as if” they did). In light of that interpretation, the 2 percent wage difference primarily reflects slight differences in productivity perceived by the HRR beyond their discrimination preferences<sup>21</sup>.

Those differences in wages also suggest that, despite our attempt to match candidates across all determinants of productivity, HRRs still perceived a small productivity difference. This might be due to unobservable differences (to us as researchers) between the synthetic profiles, such as differences in work experience or differences in neighborhood characteristics, which may affect productivity. To address this concern, we include a set of controls: commuting time to downtown Buenos Aires (the location of the types of jobs with which we were concerned), gender-specific neighborhood income and educational achievement, and candidate experience in months and years. We find that the coefficients do not change when we add these covariates; if anything, they slightly increase (model 2).

Consistent with the wage results, HRRs assessed candidates from *villas* as being 0.28 - 0.31 points less “fit for the job” than their counterparts who not from slums (Table 3, panel C). This represents a small difference of about 0.2 standard deviations and 3 percent of the mean fit value for *barrio* applicants. As with the wage results, controlling for candidates and neighborhood characteristics slightly increases the magnitude of the coefficient (model 2), and adding the vacancy fixed effects lowers the value of the discrimination coefficient (model 3).

In summary, the evidence presented in Table 3 suggests that HRRs discriminated against slum dwellers. Among the three outcomes, discrimination is more salient regarding callback decisions, where the difference between applicants from *villas* and *barrios* is 16 percentage points. Nevertheless, slight differences in reported “fit for the job” suggest some unobserved heterogeneity in productivity perceived by the HRRs across candidates. The differences in wages offered by HRRs are also consistent with the “fit for the job” results. They suggest that the lower wages offered might also be driven (at least in part) by differences in productivity that we (researchers) do not perceive, but HRRs do. In our preferred specification, presented in model 3, we control

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<sup>21</sup> Another way to interpret the 2 percent difference in the wage discrimination coefficient considers the impact of an “affirmative action” policy with full enforcement that requires the HRR to be blind to discrimination preferences for one of the candidates. If HRRs are required to hire workers with attributes that are commonly subject to prejudice (and they do hire them), any wage differences will reflect heterogeneity in productivity.

for candidate and neighborhood characteristics and include vacancy fixed effects. The results are robust to the different model specifications. We find a 16 percent difference in callback rate, a 0.23 point difference in “fit for the job”, and a 1.7 percent difference in suggested salary.

### **5.3. Opening the black box: HRRs’ characteristics and their discriminatory behaviors**

In Table 4, we compare the means of several variables that characterize the HRRs by whether or not they were high discriminators. In that analysis, we classified as high discriminators those HRRs who chose a *villa* dweller fewer than 3 times during the first 8 trials of the experiment<sup>22</sup>. The table shows that there are no clear patterns of linear statistical associations between most of the HRR characteristics and the HRRs’ propensity to be high discriminators. Only the difference in the means for whether the HRR has a degree in an HR-related field turns out to be statistically significant.

Despite Table 4 showing that there are no differences in the means of most of the HRR characteristics by the high discrimination dimension, some of those characteristics could still have a non-linear relationship with the HRRs’ propensity to discriminate. For instance, the probability of being a high discriminator could decrease at low scores in a socio-emotional dimension but increase as those scores increase, netting out the average effect. To test that hypothesis, we conduct a semi-parametric regression analysis (a linear probability model, LPM) where we allow for non-linearity in the data-generating process relating the HRR characteristics to the high discrimination measure. More specifically, we allow for the continuous variables (age of the HRR, years of overall work experience, the Rosenberg self-esteem score, and indexes for neuroticism, extroversion, openness, agreeableness, conscientiousness, and cognitive ability) to enter a high discrimination equation nonlinearly using exponential power sequences<sup>23</sup>. The full regression results from this analysis are summarized in Table B4 in the appendix.

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<sup>22</sup> The results are similar if we classify HRRs as high discriminators when they chose a candidate from a villa only once or twice.

<sup>23</sup> In the regression analysis, we exclude the Rosenberg self-esteem assessment and the measure of openness, because those do not reach statistical significance at conventional levels in any of the model specifications.

**Table 4:** Recruiters' Characteristics (Low vs. High Discriminators)

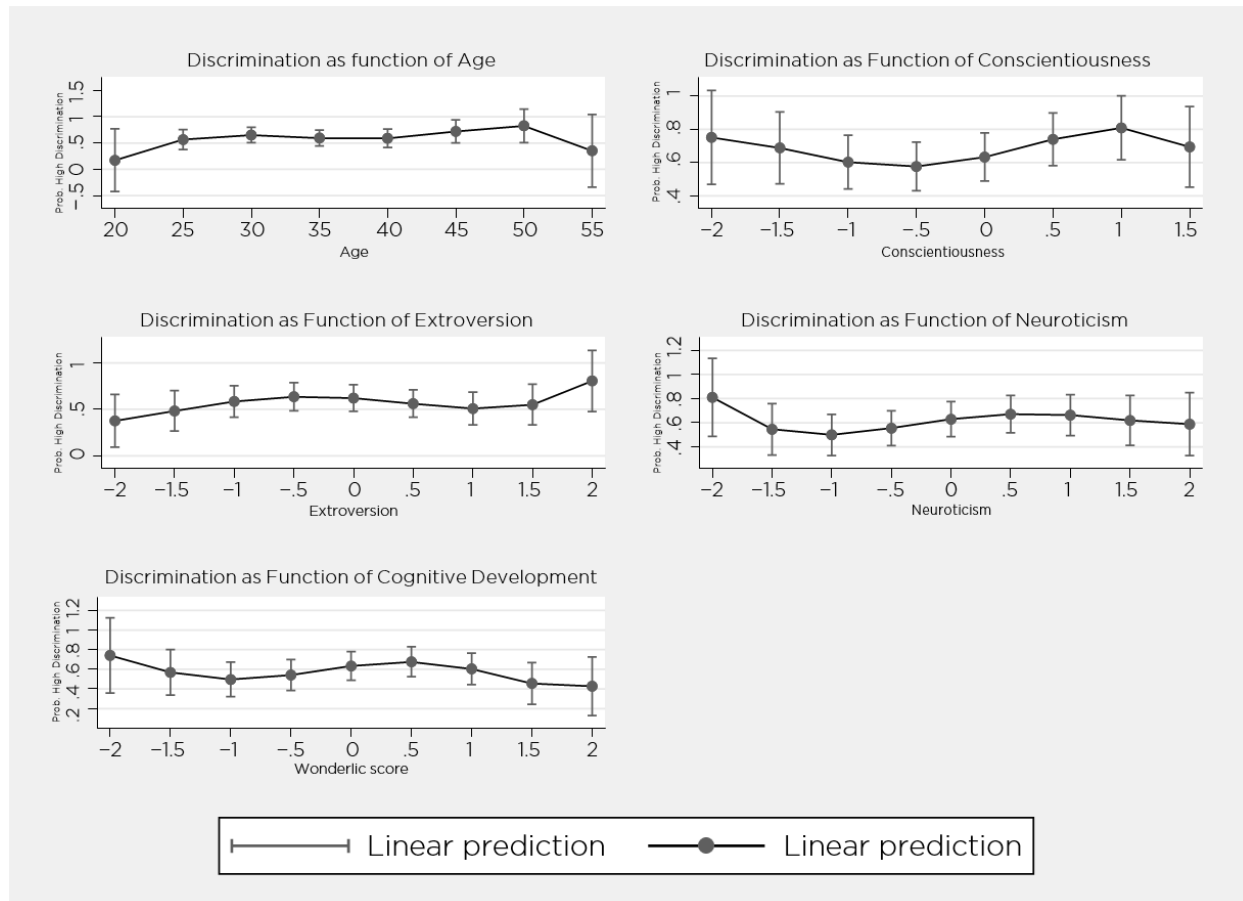
Variable	(1) Low Disc.	(2) High Disc.	(3) Difference
Female	0.790 (0.408)	0.741 (0.441)	-0.050 (0.056)
Age (years)	33.602 (6.355)	32.358 (5.982)	-1.244 (0.831)
Born in Argentina	0.887 (0.317)	0.914 (0.283)	0.026 (0.041)
Degree or more	0.790 (0.408)	0.815 (0.391)	0.024 (0.054)
Degree in HR	0.462 (0.500)	0.531 (0.502)	0.068 (0.067)
Employed	0.704 (0.458)	0.802 (0.401)	0.098* (0.059)
Total experience (years)	10.570 (6.020)	9.358 (5.666)	-1.212 (0.787)
HR experience (years)	6.387 (4.810)	5.111 (3.674)	-1.276** (0.599)
Correct answers (share)	0.680 (0.296)	0.710 (0.325)	0.030 (0.041)
Conscientiousness	0.052 (0.871)	-0.120 (1.245)	-0.172 (0.133)
Agreeableness	0.101 (0.870)	-0.232 (1.223)	-0.333** (0.132)
Openness	0.039 (0.891)	-0.090 (1.215)	-0.130 (0.133)
Extroversion	0.052 (0.877)	-0.120 (1.235)	-0.172 (0.133)
Neuroticism	0.038 (0.965)	-0.087 (1.078)	-0.124 (0.133)
Cognitive ability	0.058 (0.969)	-0.133 (1.045)	-0.191 (0.132)
N candidates from villa	4.016 (0.956)	1.605 (0.563)	-2.411*** (0.114)
Observations	186	81	267

*Note:* Columns 1 and 2 compare the means and standard deviations (in parentheses) of the recruiters' attributes by whether they were classified as low or high discriminators. Column 3 computes the mean differences in those attributes and signals the statistical significance of that difference (\*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$ ). High discriminators are those who chose a villa dweller less than 25 percent of the time (i.e., less than twice during the first eight trials).

After selecting the functional form of the continuous variables that better predicted high discrimination (see Appendix Table A4), we estimate the full model, which we present in Table 5. Columns M1 - M3 show LPM regression coefficients of the variables in the table on the probability the HRR is a high discriminator. Our preferred model is in column M3, where the HRR is a high discriminator if they selected a candidate from a *villa* fewer than 3 times in the first 8 trials of the experiment. We also compute the full model with the dependent variable classifying HRRs as high discriminators if they

selected an applicant from a *villa* only once (results in column M1), or twice (column M2).

**Figure 2:** Nonlinearities in the recruiters characteristics as predictors of discrimination



The results in Table 5 evidence that the pattern of relationship between the HRRs' characteristics and their probability of being a high discriminator is non-linear in several of the continuous covariates. We study how the probability of being a high discriminator changes non-linearly in the covariates with the aid of Figure 2. The figure shows the predicted values from model M3 in Table 5 at selected values of the covariate of interest. It shows how a unit change in the covariate affects the probability of an HRR's being a high discriminator, accounting for its specific functional form while holding the values of the rest of the covariates at their means. We highlight the following patterns: (1) the probability of high discrimination increases with age; (2) discrimination increases at low levels of conscientiousness, but then decreases as conscientiousness increases; (3) the probability of high discrimination shows an overall increase as extroversion increases; and (4) as neuroticism increases (though still at a low level), the probability of high discrimination decreases, to then increase as neuroticism keeps increasing. They suggest discrimination decreases with cognitive ability at low and high levels of ability but increases at medium levels of ability. Out of

the HRR attributes analyzed, only agreeableness shows a consistent pattern of linear statistical association with the likelihood that an HRR is a high discriminator: the higher the agreeableness score, the lower the level of the discrimination coefficient.

While these results cannot be taken as causal evidence of the impact of age, personality traits, and ability on the propensity to discriminate, they do suggest that non-cognitive and cognitive skills are key predictors of discriminatory practices. For instance, a poorly developed capacity to “put other people’s needs above their own” (which defines the agreeableness concept) coupled with high neuroticism might drive high discrimination among HRRs. A better understanding of whether these are traits that can be influenced by policy to reduce discriminatory behavior by older persons deserves a dedicated research agenda.

## **5.4. Effects of the behavioral intervention**

As we stated in Section 3.2, the full experiment had 10 trials. Before the ninth trial, we presented recruiters with the pop-up message shown in Figure A9. The content of the message was the actual rate of urban discrimination in hiring in their city. By showing that message, we expected recruiters would incorporate that information as input in their hiring decision-making process. In this subsection, we compare the discrimination coefficients before and after the intervention to estimate its impact on the HRRs’ behaviors.

Figure 3 plots the discrimination coefficients (OLS estimates with their 95 percent confidence intervals) on callbacks, fit for the job, and log wages during the 10 trials of the experiment. The graph evidence conspicuous differences in the estimates of the discrimination effects in all three outcomes between the experiment’s first 8 and last 2 trials (i.e., before and after the pop-up message). Note that the discrimination coefficient estimates change their sign after the intervention. Reiterating what we observe in the graph, Table B2 in the appendix shows that the discrimination coefficients for hiring and fit for the job are similar across the first 8 trials of the experiment. In the case of the wage outcomes, the estimates become smaller and lose statistical significance as we progress in the experiment. This pattern helps validate the identifying assumption for the before and after estimator. It suggests that we are correct to focus on the seventh and eighth trials of the experiment to define the pre-program period. Overall, the dynamic in the discrimination coefficients shown in Figure 3 suggests that the informational vignette would have altered the HRRs’ choices, inducing them to discriminate less.

**Table 5:** Recruiters' Characteristics and Their Discriminatory Behavior

	(1) M1 b/se	(2)M2 b/se	(3)M3 b/se
Argentina	-0.080 (0.066)	0.017 (0.100)	-0.079 (0.104)
Degree in HR	0.081* (0.041)	0.046 (0.062)	0.148** (0.065)
Employed	0.056 (0.048)	0.092 (0.072)	-0.028 (0.075)
Woman	-0.083* (0.049)	-0.051 (0.074)	-0.032 (0.077)
Age (years)	0.084 (0.217)	-0.385 (0.326)	-0.758** (0.341)
Age <sup>2</sup>	-0.010 (0.025)	0.044 (0.037)	0.081** (0.039)
Age <sup>3</sup>	0.000 (0.001)	-0.002 (0.002)	-0.003** (0.002)
Age <sup>4</sup>	-0.000 (0.000)	0.000 (0.000)	0.000** (0.000)
Age <sup>5</sup>	0.000 (0.000)	-0.000 (0.000)	-0.000** (0.000)
Conscientiousness	0.121*** (0.045)	0.095 (0.068)	0.184** (0.071)
Conscientiousness <sup>2</sup>	-0.029 (0.039)	0.097 (0.059)	0.111* (0.062)
Conscientiousness <sup>3</sup>	-0.022 (0.019)	-0.046* (0.028)	-0.081*** (0.029)
Conscientiousness <sup>4</sup>	-0.001 (0.009)	-0.028** (0.013)	-0.038*** (0.014)
Agreeableness	-0.025 (0.024)	-0.083** (0.036)	-0.077** (0.038)
Extroversion	-0.075* (0.040)	-0.053 (0.060)	-0.087 (0.063)
Extroversion <sup>2</sup>	-0.048 (0.034)	-0.048 (0.052)	-0.096* (0.054)
Extroversion <sup>3</sup>	0.019 (0.012)	0.028 (0.019)	0.049** (0.019)
Extroversion <sup>4</sup>	0.006 (0.006)	0.013 (0.009)	0.022** (0.009)
Neuroticism	0.001 (0.040)	-0.014 (0.060)	0.128** (0.062)
Neuroticism <sup>2</sup>	0.023 (0.034)	0.001 (0.051)	-0.070 (0.054)
Neuroticism <sup>3</sup>	0.002 (0.012)	-0.009 (0.018)	-0.046** (0.019)
Neuroticism <sup>4</sup>	0.000 (0.006)	0.004 (0.009)	0.022** (0.010)
Wonderlic	-0.016 (0.054)	0.036 (0.082)	0.164* (0.085)
Wonderlic <sup>2</sup>	-0.021 (0.039)	-0.168*** (0.059)	-0.107* (0.062)
Wonderlic <sup>3</sup>	-0.006 (0.038)	-0.074 (0.057)	-0.127** (0.060)
Wonderlic <sup>4</sup>	0.003 (0.008)	0.032*** (0.011)	0.024** (0.012)
Wonderlic <sup>5</sup>	0.001 (0.005)	0.012* (0.007)	0.017** (0.007)
Missings	0.198 (0.123)	0.159 (0.185)	0.244 (0.193)
cons	0.207 (0.462)	0.208 (0.694)	0.985 (0.725)
N	266	266	266

Note: Values in M1-M3 are LPM coefficients. The outcome variable is "High discriminators," an indicator if recruiters selected a villa applicant less than once (M1), twice (M2), or three times (M3).



We present results of the before and after estimates of the effect of the pop-up message in Table 6. Our preferred specification is reported in column 4, where we compare estimates using data from trials seven and eight with data from trials nine and ten. Note that the estimates of the impact are very similar across all specifications. We find that the informational vignette resulted in an increase of 29 percentage points in the probability of choosing a *villa* candidate (panel A); this is about twice the size of the discrimination coefficient discussed above, suggesting that now HRRs are “discriminating” against *barrio* candidates at a rate that is similar to their discrimination toward *villa* candidates before the intervention. The effects on the “fit for the job” assessment and salaries offered are in the same direction. The “fit for the job” assessment of *villa* candidates increased by 0.26 points, fully compensating for the pre-intervention discrimination (panel B, column 4). Finally, the intervention increased salaries offered to *villa* candidates by 2.8 percent (panel C, column 4), an effect that is almost twice the size of the original discrimination coefficient associated with salaries.

As explained in the methods section, we also estimate within-occupation differences in the discrimination coefficients to recover causal estimates of the effect of the pop-up message on the HRRs’ discriminatory behaviors. The estimates concerning the other two outcomes confirm the direction of the impact for hiring but are primarily underpowered. We only present the results of the message’s impact on hiring discrimination<sup>24</sup>.

In Figure 4 we show the within-occupation estimates of the impact of the pop-up message on the hiring decisions of the HRRs. Reproducing the result from the before and after estimator, the data in the top panel of the figure shows that all the estimates have a positive sign (the magnitudes of those coefficients range between 3.10 p.p and 36.4 p.p) and several are statistically significant. This result suggests that the pop-up message would have affected the HRRs’ behavior in relation to applicants for most occupations: the HRRs changed their pattern of responses as a result of that message to begin favoring people from *villas*.

To better identify the HRRs who were more affected by the intervention, we provide a heterogeneity analysis by whether the HRRs were high vs. low discriminators in the middle and bottom panels of Figure 4. Comparing the results in the two panels, it is apparent that the “high discriminators” were the HRRs who changed their behavior the most in response to the pop-up message.

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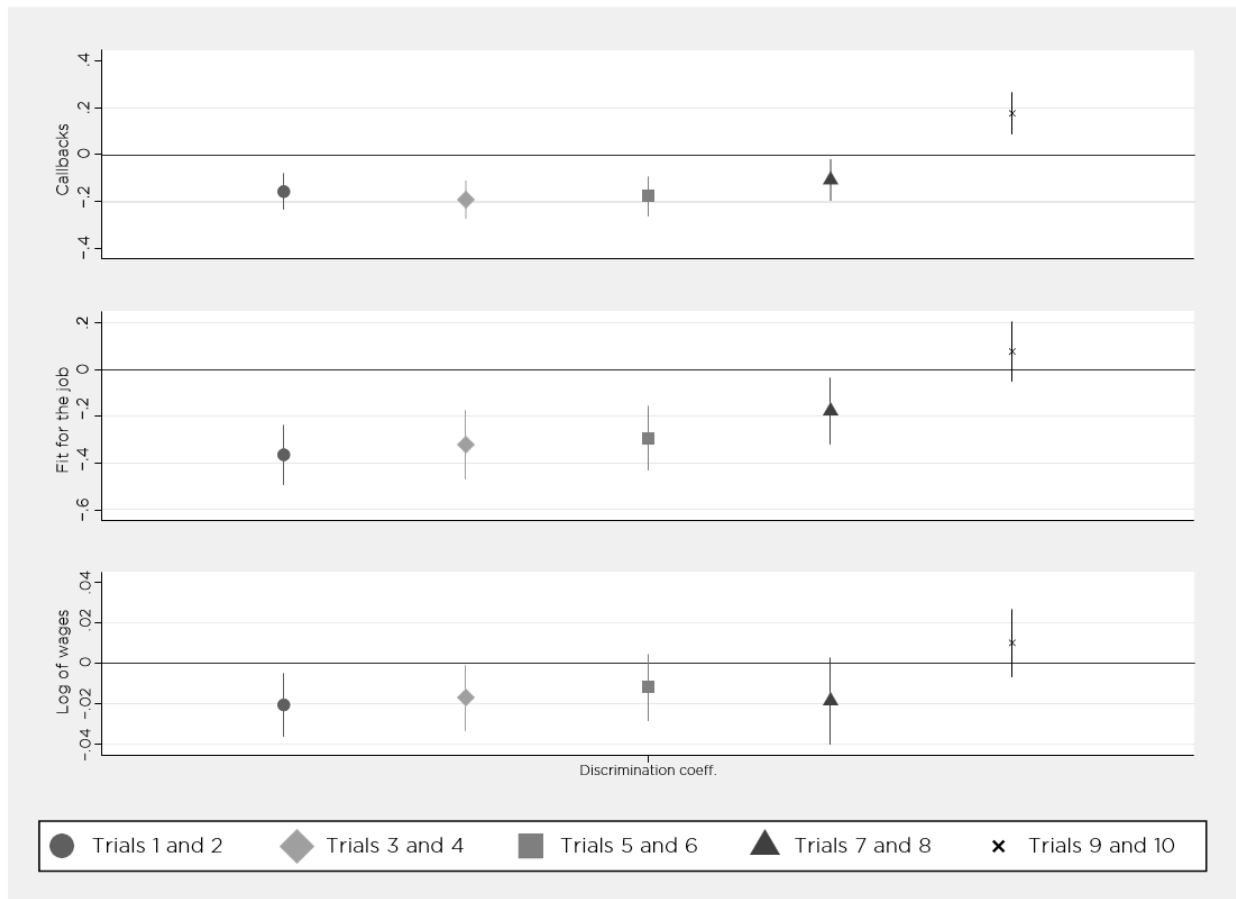
<sup>24</sup> The results are similar if we use other trials of the experiment to create the comparison group.

**Table 6:** Effects of the Intervention (By Trial Groups in the Pre-intervention Period)

	(1) Trials 1–2 vs. 9 and 10	(2) Trials 3–4 vs. 9 and 10	(3) Trials 5–6 vs. 9 and 10	(4) Trials 7–8 vs. 9 and 10
<b>A. Callbacks:</b>				
Intervention effects	0.337*** (0.057)	0.363*** (0.057)	0.327*** (0.062)	0.291*** (0.061)
Mean Barrio - Pre	0.58	0.60	0.59	0.55
Observations	2077	2061	2057	2035
<b>B. Fit for the job:</b>				
Intervention effect	0.416*** (0.088)	0.376*** (0.093)	0.330*** (0.095)	0.261*** (0.087)
Mean Barrio - Pre	7.72	7.87	7.86	7.89
Observations	2077	2061	2057	2035
<b>C. Wages:</b>				
Intervention effect	0.030** (0.012)	0.025** (0.011)	0.021* (0.012)	0.028* (0.015)
Mean Barrio - Pre	11.09	11.11	11.12	11.11
Observations	2077	2061	2057	2035
<b>Model specification</b>				
Applicants' characteristics	YES	YES	YES	YES
Position fixed effects	YES	YES	YES	YES

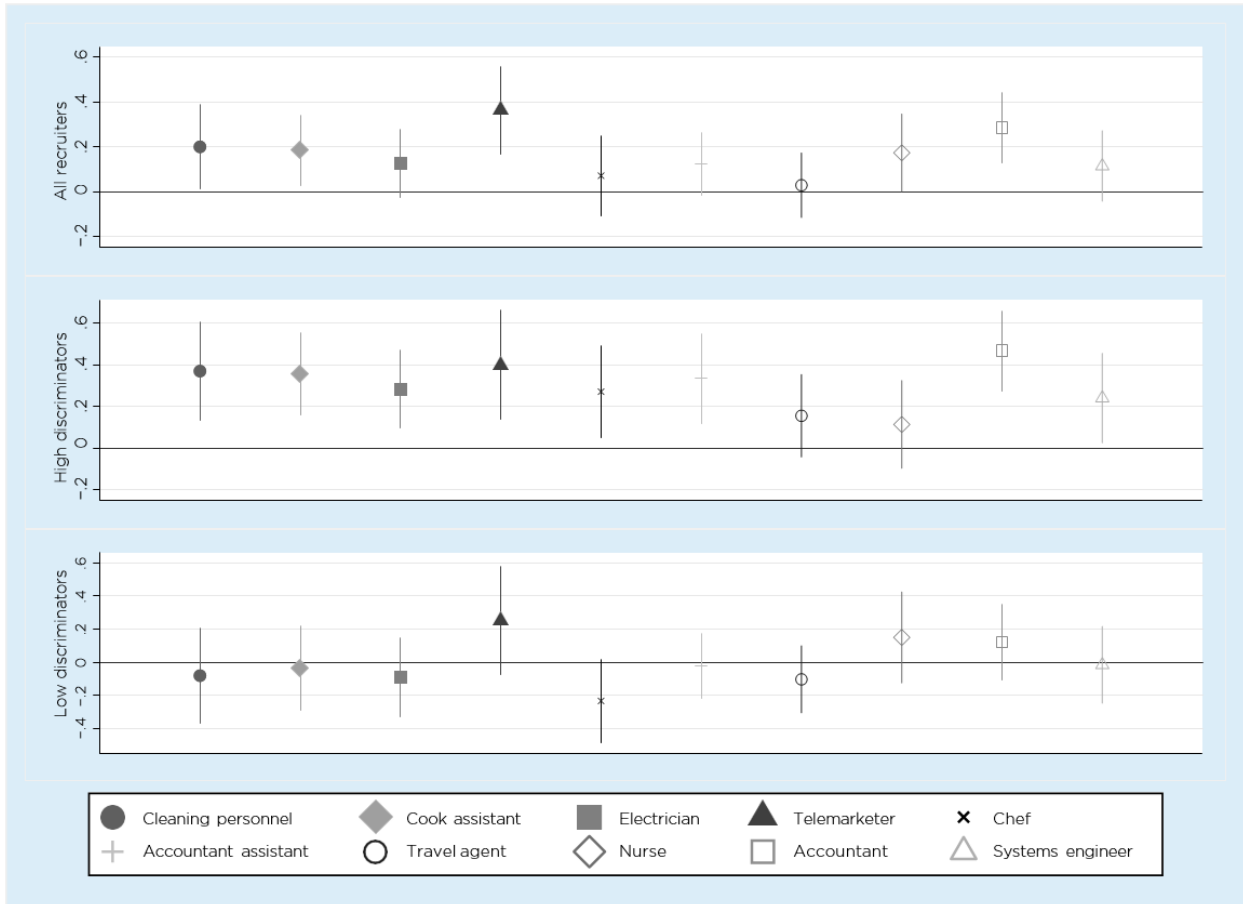
*Note:* The table shows four alternative before and after estimates of the discrimination effect for each outcome (computed using OLS regressions). The pre period considered in each estimate is identified at the top of the columns, and the *post* period always corresponds to trials nine and ten in the experiment. In panel A, the dependent variables are dummy variables indicating whether the candidate was selected (“called back”) for the position. In panel B, the dependent variable represents the candidate’s “fit for the job,” measured on a scale of 1 to 10. In panel C, the dependent variable is the natural logarithm of the wages proposed for the pairs of candidates. Standard errors clustered at the recruiter level are reported in parentheses. *Applicants’ characteristics* include months and years of experience, commuting time, average income, and share who have completed secondary education. \*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$ .

**Figure 3:** Discrimination Coefficients across Trials of the Experiment



*Note:* Each symbol in the figure (small dot, square, triangle, etc.) represents an estimate of the discrimination coefficient with 99 percent confidence intervals spreading in vertical lines. Each estimate pertains to the outcomes along the vertical axis and was computed for a subsample of data that restricted applications to the trials mentioned in the legend. The regression is based on model 1 and does not include controls or fixed effects. Standard errors are clustered at the recruiter level.

**Figure 4:** Within-occupation Estimates of the Behavioral Intervention



*Note:* Each symbol in the figure (small dot, square, triangle, etc.) represents an estimate of the effect of the pop-up message intervention computed using data from the last four trials of the experiment. Confidence intervals of 90 percent spread in vertical lines. Each estimate pertains to discrimination in hiring. The estimates are OLS regression coefficients based on model 1. Standard errors are clustered at the recruiter level.

## 6. Discussion

### 6.1. Heterogeneity in effects by occupation and skills required

In this subsection, we explore heterogeneity in the discrimination effects across occupations. As we detailed in section 3.3, we simulated job vacancies in 10 positions and associated a pair of synthetic applicants to each one of those. We built the profiles of applicants to be gender and skills-specific so that within each pair, both candidates have the same sex and skills level. Our aim in setting those attributes of the data is twofold. First, while results might be driven by the fixed composition of the candidates

within positions, we would like to evaluate whether or not a unique value or outlier drives the average results across occupations. Second, we seek to answer whether urban discrimination in Buenos Aires varies according to the skill level required by the position.

**Table 7:** Effects of Discrimination by Skills Level Required

	(1) Less than college	(2) Some college or more
<b>A. Callback:</b>		
Discrimination coeff.	-0.190*** (0.030)	-0.125*** (0.030)
Mean Barrio	0.60	0.56
Observations	2154	2016
<b>B. Fit for the job:</b>		
Discrimination coeff.	-0.295*** (0.047)	-0.283*** (0.050)
Mean Barrio	7.85	7.82
Observations	2154	2016
<b>C. Log wages:</b>		
Discrimination coeff.	-0.016*** (0.004)	-0.018** (0.007)
Mean Barrio	10.97	11.25
Observations	2154	2016
<b>Model specification</b>		
Applicants' characteristics	NO	NO
Position fixed effects	NO	NO

*Note:* The values in the table are OLS coefficients that identify the mean difference in the outcomes associated to candidates from *villas* and *barrios* (divided into columns by whether the applicants had or did not have some college-level education). All regressions are computed with observations for the first eight trials of the experiment. In horizontal panel A, the dependent variables indicate whether the candidate was selected (“called back”) for the position. In panel B, the dependent variable represents the candidate’s “fit for the job,” measured on a scale of 1 to 10. In panel C, the dependent variable is the natural logarithm of the wage suggested for the candidates. Standard errors clustered at the recruiter level are reported in parenthesis. \*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$ .

To answer these questions, in Figure 5 we present estimates of the discrimination effects for the three outcomes (top to bottom: callbacks, “fit for the job,” and log wages) across the 10 positions (with 99 percent confidence intervals in vertical lines). In the figure, we show the discrimination effects we estimate with the specification as in model 1 from Table 3, but without controls and fixed effects. The results plotted in the top panel of the figure suggest that hiring discrimination is pervasive. Across all occupations analyzed, six have estimates with a negative sign, and, among those, five are statistically significant at the 99 percent confidence interval. Notice that while four estimates have a positive sign, one of those is very close in magnitude to 0 (cook assistant), and only one (accountant assistant) is statistically significant within the 99 percent range of confidence. Those results are qualitatively similar when it comes to interpreting what Figure 5 shows in the middle and bottom panels (results for “fit for the job” and log of wages outcomes): there is discrimination across most occupations.

In Table 7 we show estimates of the discrimination effect by skills required for the job. The left column shows applicants for five positions that did not require a college degree and the right column shows estimates grouping those five positions that required either some college or a college degree<sup>25</sup>. From the table, we observe only slight differences in the magnitudes of the discrimination effects by the skills required for the job.

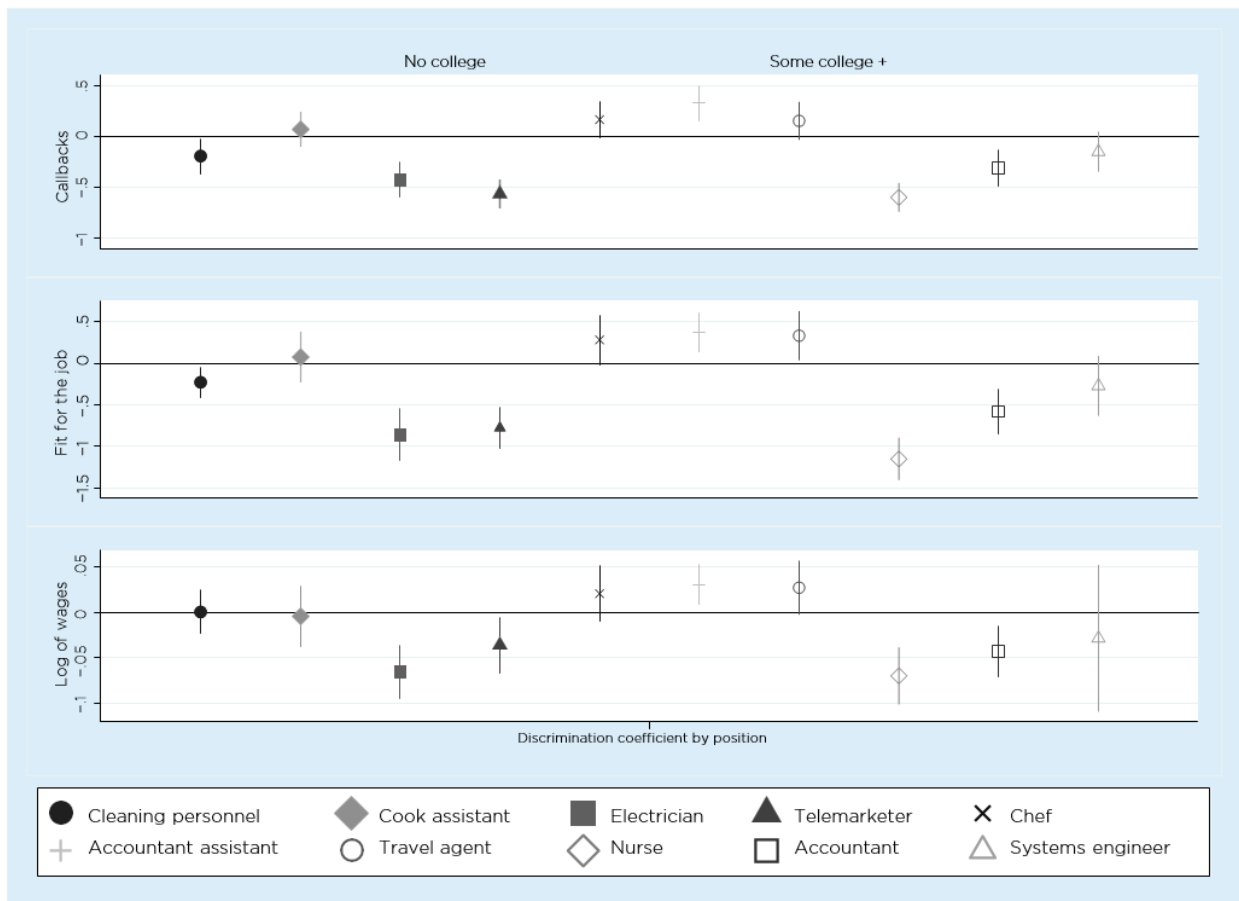
## 6.2. Statistical vs. taste-based discrimination

Economic theory would predict that absent discrimination, there should not be differences in either callbacks or wages offered to two potentially equally productive workers, because the value of their marginal products would be equivalent. In our experiment, we presented candidate profiles designed to be equivalent in terms of expected productivity. However, we find that recruiters systematically considered candidates from the *barrio* more productive even after we controlled for applicants’ and neighborhood characteristics. This could be because living in an informal neighborhood has a negative impact on perceived productivity for reasons directly related to informality: lower quality of and access to services, etc. Because of the way the experiment was designed, we cannot control for these features. However, the assessment of “fit for the job” can be used to measure the differences in perceived productivity (which are unobserved to us as researchers) that result from HRRs’ exercise of “statistical discrimination.”

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<sup>25</sup> The five occupations that do not require a college education are (1) cleaning personnel, (2) cook assistant, (3) electrician, (4) telemarketer, and (5) chef. The occupations that require at least some college are (6) accountant assistant, (7) travel agent, (8) nurse, (9) accountant, and (10) systems engineer.

**Figure 5:** Discrimination Coefficients by Position Applied For



*Note:* Each symbol in the figure (small dot, square, triangle, etc.) represents an estimate of the discrimination coefficient with 99 percent confidence intervals spreading in vertical lines. Each estimate pertains to the outcome along the vertical axis and was computed for a subsample of data that restricted applications to the vacancies/occupations mentioned in the legend. The regression is based on model 1 and does not include controls or fixed effects. Standard errors are clustered at the recruiter level.

Controlling for “fit for the job,” we can hold these unobservable features constant and isolate “taste-based discrimination.” If the HRRs do not exercise taste-based discrimination and we condition on “fit for the job” to estimate the discrimination effect on callback and wages, we should find zero residual variation on those outcomes. Therefore, when we control for productivity (or “fit for the job”), any remaining differences in the outcomes across residents of *villas* and *barrios* could be attributed to taste-based discrimination.

Note that this strategy relies on the assumption that “fit for the job” is independent of taste-based discrimination. That is, when HRRs assess “fit for the job,” they assess productivity without incorporating any taste into their assessment. To the extent to which this separation is not possible, a part of the taste component would be

incorporated in the “fit of the job” assessment, thus leading us to underestimate the magnitude of “taste-based discrimination”<sup>26</sup>.

In Table B3, we explore the separate roles of taste-based and statistical discrimination on the callback (panel A) and wage (panel B) outcomes. In the left column, we reproduce the discrimination coefficient estimates from model 3 in Table 3. In the right column, we have the same specification, but linearly hold constant the recruiters’ assessments of “fit for the job.” Note that when we control for “fit for the job,” the discrimination coefficient on the callback outcome gets closer to 0 in absolute value and remains statistically significant at conventional levels of precision. This result suggests that conditional on hiring, 80 percent of the hiring discrimination is due to animosity against slum dwellers and that we can trace the remaining effect to productivity differentials still perceived by the HRR after matching on observables (i.e., statistical discrimination). In the case of wage differentials, we also find that the “fit for the job” measure adjusts for unobserved differences: 46 percent of the discrimination effect on wages results from statistical discrimination, which suggests that at least half of the wage discrimination results from taste-based discrimination. While we cannot claim these results are causal, because the assessment of “fit for the job” is unlikely to be independent of the other outcomes, we interpret these results as suggestive evidence that dislike for slum dwellers is the main driver of discrimination in this setting.

## 7. Conclusions

Using a field experiment, we find evidence of urban discrimination in hiring and wages in a major LAC city. Though job candidates from *villas* and *barrios* displayed the same qualifications and experience, the former was chosen by HRRs less often than the latter by a difference of 16 percentage points. In addition, conditional on having to select a worker, HRRs offered 2 percent lower wages to candidates from *villas*. We control for productivity by using the proxy variable “fit for the job” and, with productivity differences held constant, the magnitudes of the urban discrimination coefficient in callbacks and wages decrease just slightly, suggesting that taste-based discrimination drives most of our results.

We studied how several personal and psychological characteristics of the HRRs had statistical associations with the discriminatory behaviors they exhibited in the experiment. Specifically, we estimate whether the HRRs’ age, gender, years of experience, educational achievement, degree attained, past employment experience,

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<sup>26</sup> Another interpretation could be that, instead of providing an independent answer for “fit for the job,” the HRR is using this field to provide a justification for their discriminatory choice in the callback question, which precedes the “fit for the job” question in each trial of the experiment. In general, we acknowledge the limitation that the three outcomes are observed as part of the same experiment and, therefore, could be jointly determined.



conscientiousness, agreeableness, openness, extroversion, neuroticism, and cognitive ability predicted urban discrimination. We found that agreeableness is the only trait with sufficient power to linearly predict HRR discrimination effectively: more-agreeable people tend to discriminate less. Other variables, such as age and those measuring performance on cognitive development, conscientiousness, extroversion, and neuroticism tests, non-linearly predicted the rate at which HRRs would discriminate.

We also test the effectiveness of an informational intervention to examine whether we could influence the discriminatory behaviors of HRRs we observed. We find that after HRRs were exposed to information about the prevalence of discrimination in Buenos Aires' labor markets, the callback rates for slum dwellers changed dramatically. This result suggests that behavioral/informational interventions might be practical tools at the disposal of policymakers and practitioners for addressing inequality and inefficiency problems associated with discrimination. Further inquiry about the behavioral mechanisms driving the effect of that specific intervention would be a fruitful line of research.

This study has important policy implications. Reducing discrimination is not only desirable for moral reasons, but it is also economically sound. Discrimination represents a tax on affected individuals, limiting their potential to engage in market transactions. It is also a societal efficiency tax on development programs to improve vulnerable populations' social and economic inclusion. Where discrimination is prevalent, each dollar invested in programs to promote social inclusion will not reach its efficiency frontier. For instance, training programs that foster employment for youngsters living in slums might effectively provide the job market skills they need. However, these programs will only improve their effectiveness if beneficiaries are not discriminated against in labor markets compared to their peers in formal neighborhoods.

Urban discrimination has short-term consequences and long-term impacts on development. In the short term, it prevents slum dwellers from accessing labor markets, despite their being sufficiently skilled for jobs. In the long run, ex-ante perceptions about discrimination against slum dwellers in the job market may affect their decision to accumulate human capital (especially when deciding whether to pursue higher education, which typically leads to higher-skilled jobs). People living in slums will not complete schooling until they perceive that, on the margin, the additional effort provides them with a consequent return. As discrimination lowers those expected returns, slum dwellers under-invest in human capital accumulation and in turn, are excluded from formal jobs, thus perpetuating a poverty trap.

Eliminating discrimination should be on the policy agenda, and development projects targeting slum dwellers should incorporate initiatives to tackle urban discrimination specifically. Interventions should be based on both scientific evidence about the

magnitude of the discrimination phenomenon and rigorous impact evaluation of policies to deal with it. Surprisingly, the bulk of research in both areas is minimal. Our study builds upon previous research in proposing new empirical avenues for pursuing these goals and promoting the social inclusion of vulnerable populations living in slums and other underprivileged areas of cities.

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# Appendix

## A. Figures

**Figure A1:** Job Post

<p><b>Job description</b> 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 Buenos Aires para trabajar en el proceso de selección, reclutamiento y análisis de remuneración de personal.</p> <p><b>Requisitos:</b> Graduado/a en carreras de Recursos Humanos, Relaciones Laborales, Administración, Psicología, Sociología o afines. 2 años de experiencia (mínimo) trabajando en el área de recursos humanos específicamente en el área de Buenos Aires. Conocimiento sobre la legislación laboral argentina.</p> <p><b>¿Qué harás?</b> La tarea consiste en analizar perfiles de candidatos/as para diversos puestos. Los perfiles han sido pre-seleccionados y provistos con anticipación. La dedicación será máxima de 4 horas. La tarea puede realizarse en cualquier horario dentro del plazo disponible. La tarea será realizada por una única vez, no requiere dedicación exclusiva y puede realizarse de manera remota. Se ofrece una retribución atractiva.</p> <p><b>Employment Type</b> Temporary</p>	<p><b>Job description</b> For an international consulting firm, we are looking for human resources analysts and/or talent recruiters with experience working in the Buenos Aires labor market, to participate in a process of staff selection, recruitment, and salary determination.</p> <p><b>Requirements:</b> Degree in Human Resources, Labor Relations, Administration, Psychology, Sociology or related subjects. 2 years of experience (minimum) working in human resources specifically in Buenos Aires. Knowledge of Argentine labor legislation.</p> <p><b>What will you do?</b> Analyze candidate profiles for multiple positions. The profiles were pre-selected and provided in advance. The task will take a maximum of 4 hours. It can be completed any time within a specified time frame. The task can be completed only once, it does not require exclusive dedication, and can be done remotely. Attractive remuneration is offered.</p> <p><b>Employment Type</b> Temporary</p>
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**Figure A2: First E-mail**

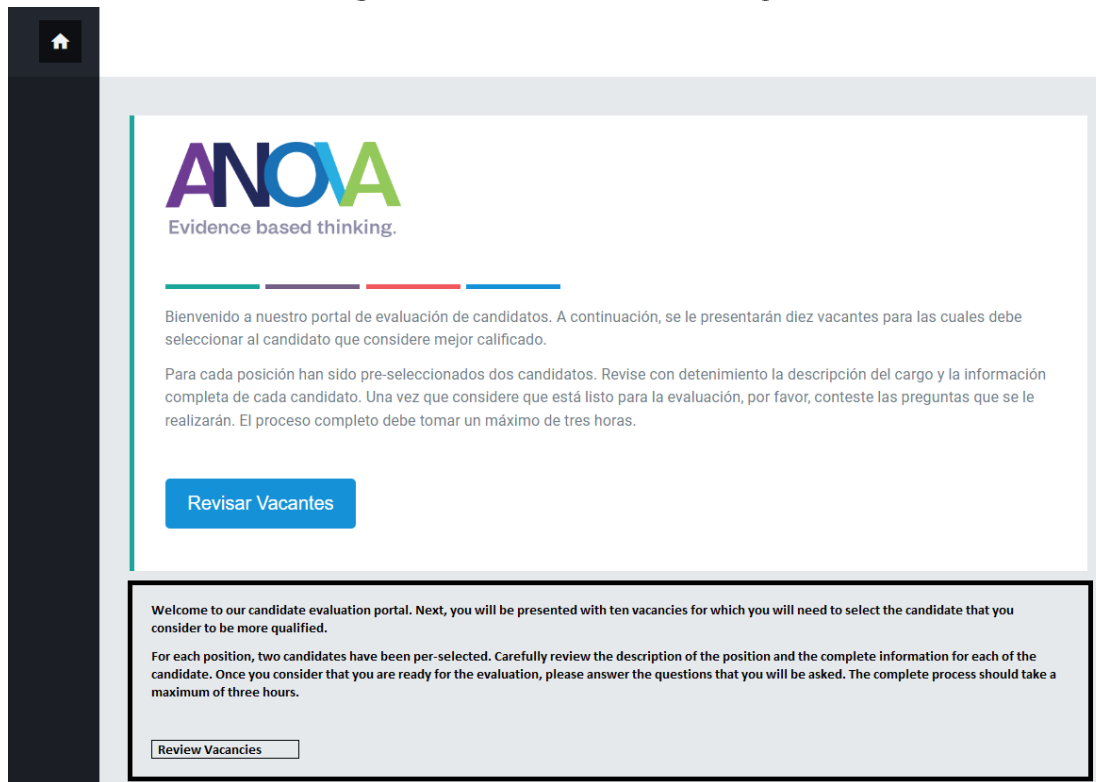
<p><b>Email #1: After submitting interest through LinkedIn:</b></p> <p>Queríamos agradecerte por tu interés en nuestra búsqueda de Analista de Recursos Humanos. Nos interesa tu perfil y te hemos preseleccionado para la posición.</p> <p>Para finalizar el proceso de selección, te invitamos a completar el siguiente formulario con tu información personal, una encuesta sobre tu conocimiento del mercado laboral de la Ciudad de Buenos Aires y te tomaremos una prueba socioemocional. Este proceso te tomará 40 minutos aproximadamente.</p> <p>Para hacerlo, deberás registrarte en el siguiente enlace: <a href="#">[link]</a></p> <p>Esperamos que puedas completarlo durante las 72 hs siguientes a recibir este correo, debido a que luego de ello caducará el link.</p> <p>En caso de que te seleccionemos, recibirás un correo con las indicaciones necesarias para realizar la tarea. Te sugerimos que revises con frecuencia tu correo no deseado por las dudas que lo recibas allí.</p> <p>Te recordamos que la tarea consiste en una actividad a desarrollarse por una única vez y estimamos que te tomará máximo 2 horas.</p> <p>Tendrás que analizar perfiles pre-seleccionados de candidatos/as para diversos puestos. Esta actividad no requiere dedicación exclusiva y se realizará de manera remota.</p> <p>La remuneración por la misma sería de AR\$ 4.000 (cuatro mil pesos argentinos) que se realizará a través de una transferencia bancaria.</p> <p>Una vez completada la tarea, nos contactaremos con vos para realizar el pago.</p> <p>Cualquier inquietud o comentario no dudes en escribirnos respondiendo este mismo correo.</p> <p>Atentamente, Anova Policy Research</p>	<p><b>Email #1: After submitting interest through LinkedIn:</b></p> <p>We wanted to thank you for your interest in our search for a Human Resources Analyst. We are interested in your profile and have pre-selected you for the position.</p> <p>To complete the selection process, we invite you to fill in the following form with your personal information, a survey on your knowledge of the labor market of the City of Buenos Aires, and a socio-emotional test. This process will take you approximately 40 minutes. To do so, you must register at the following link: <a href="#">[link]</a></p> <p>We hope you can complete it during the 72 hours after receiving this email, because after that the link will expire.</p> <p>If you are selected, you will receive an email with the instructions necessary to perform the task.</p> <p>We suggest that you frequently check your spam for the doubts you receive there.</p> <p>We remind you that the task consists of an activity to be developed for a single time and we estimate that it will take you a maximum of 2 hours. You will have to analyze pre-selected profiles of candidates for various positions. This activity does not require exclusive dedication and will be carried out remotely.</p> <p>The remuneration for it would be AR\$ 4,000 (four thousand Argentine pesos) to be made through a bank transfer. Once the task is complete, we will contact you to make the payment.</p> <p>Any questions or comments do not hesitate to write to us by answering this same email.</p> <p>Kind regards Anova Policy Research</p>
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**Figure A3: Second E-mail**

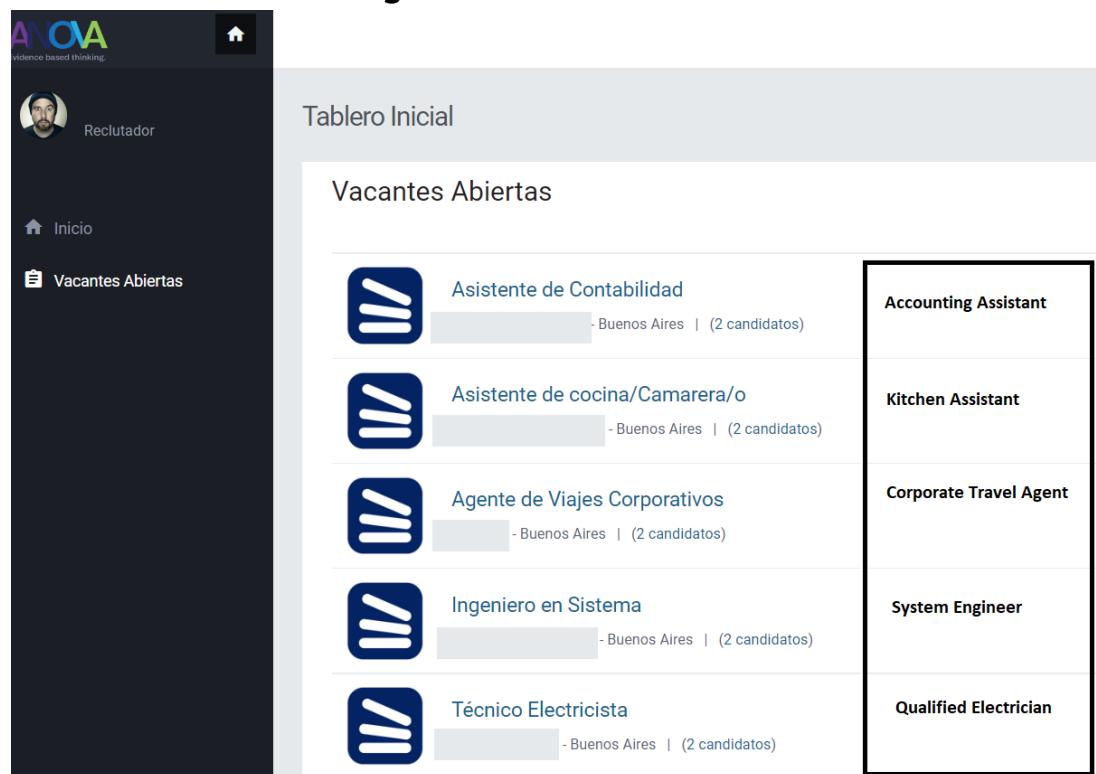
<p><b>Email #2: Email sent automatically once the recruiter finishes the registration</b></p> <p>Estimado/a,</p> <p>¡Felicidades!</p> <p>Queríamos agradecerle por completar el proceso de selección de nuestra búsqueda de Analista de Recursos Humanos y notificarte que te hemos seleccionado para la tarea.</p> <p>Te recordamos que la tarea consiste en una actividad a desarrollarse por una única vez y estimamos que te tomará máximo 3 horas. Esta actividad no requiere dedicación exclusiva y se realizará de manera remota.</p> <p>Una vez que comiences la tarea tendrás que terminarla, ya que la plataforma no permite guardar resultados parciales. Por eso, contempla desarrollar esta actividad en un momento donde tengas tiempo suficiente para hacerla.</p> <p>Deberás ingresar a <a href="#">[link]</a> con el siguiente enlace de acceso y contraseña:</p> <p>Email: <a href="#">[email]</a></p> <p>Código de acceso: <a href="#">[email]</a></p> <p>Este usuario fue generado solo para ser usado por vos, por favor no lo difundas. Esperamos que puedas completarlo durante las 72 hs siguientes a recibir este correo, debido a que luego de ello caducará el link.</p> <p>La remuneración por la misma es de AR\$ 4.000 (cuatro mil pesos argentinos).</p> <p>Cuando finalices la tarea nos contactaremos con vos para realizar el pago, que será a través de una transferencia bancaria a una cuenta que esté a tu nombre.</p> <p>Cualquier inquietud o comentario no dudes en escribirnos respondiendo este</p>	<p><b>Email #2: Email sent automatically once the recruiter finishes the registration</b></p> <p>Dear, Congratulations!</p> <p>We wanted to thank you for completing the selection process for the HR Analyst position and notify you that we have selected you for the task.</p> <p>We would like to remind you that the task consists of an activity to be completed only once. We estimate that it will take you a maximum of 3 hours. This activity does not require exclusive dedication and will be carried out remotely.</p> <p>Once you start the task you will have to finish it, since the platform does not allow you to save partial results. Therefore, plan to carry out this activity when you have enough time to complete it.</p> <p>You must access this <a href="#">[link]</a> with the following credential:</p> <p>Email: <a href="#">[email]</a></p> <p>Password: <a href="#">[password]</a></p> <p>This user was generated only for you, please do not share it.</p> <p>We hope you can complete the task during the 72 hours after receiving this email, because, after that, the link will expire.</p> <p>The remuneration for the task is AR\$ 4,000 (four thousand Argentine pesos). When you finish the task, we will contact you to make the payment through a bank transfer to an account that is in your name.</p> <p>If you have any questions or comments do not hesitate to contact us by responding to this email.</p> <p>Kind regards</p>
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**Figure A4: Platform Home Page**



**Figure A5: List of Vacancies**



**Figure A6: Vacancy Example**

Tablero Inicial > Vacantes Abiertas > Detalle de la vacante

## Operador de ventas telefónicas

- Buenos Aires

### Objetivo general

Operador de Call Center para ventas de servicios de consultoría a pequeños comerciantes.

### Funciones específicas

### Conocimientos técnicos

### Formación

### Telephone sales operator

### General objective

Call Center operator for sales of consulting services to small traders

### Specific functions

### Tecnical knowledge

### Education

**Figure A7: Candidates Example**

Candidatos Preseleccionados

Pre-selected candidates

### Lucía Fernández

Pierres 351, C1408 Liniers, Buenos Aires.  
Teléfono: 11 [redacted]  
Email: [redacted]@hotmail.com

### Barrio Address

### Información Personal

### Formación

### Experiencia Laboral

### Información Adicional

### Rosario Martinez

Manzana 2, Casa 56, Los Piletones, Buenos Aires.  
Teléfono: 11 [redacted]  
Email: [redacted]@hotmail.com

### Villa Address

### Personal information

### Education

### Work experience

### Additional information

Proceder a seleccionar postulante definitivo

Proceed to select final candidate

**Figure A8: Candidate Selection**

### Selección definitiva para el cargo

¿Cual es su candidato principal para ocupar esta vacante?

☐ Agustina Barbero ☐ Paola Sosa

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

Agustina Barbero	Paola Sosa
<div>Seleccion</div>	<div>Seleccior</div>

¿Cuál es el salario mensual que le asignaría al candidato seleccionado de acuerdo a su perfil?  
(coloque el salario en pesos argentinos ARS, solo numeros, sin simbolos, sin puntos)

¿Cuál es el salario mensual que le asignaría al otro candidato de acuerdo a su perfil?  
(coloque el salario en pesos argentinos ARS, solo numeros, sin simbolos, sin puntos)

Por favor comente en qué criterio ha basado su selección

### Final selection for the position

Who is your main candidate to fill this vacancy?

On a scale from 1 to 10, how do you consider that each candidate is suitable for the job requirements?

What is the monthly salary that you would assign to the selected candidate according to their profile?

What is the monthly salary that you would assign to the other candidate according to their profile?

Please comment on what criteria you have based your selection

**Figure A9: Pop-up Message**

Detalle de la

s y áreas comun

Un estudio del Banco Interamericano de Desarrollo conducido recientemente en la ciudad de Buenos Aires encontró que, aunque tengan iguales condiciones de formación para el trabajo y experiencia laboral, los habitantes de las villas son llamados a posiciones de trabajo un 20% menos que los habitantes de los barrios formales.

Aceptar

A study by the Inter-American Development Bank conducted recently in the city of Buenos Aires found that, even though they have the same education and work experience, the inhabitants of the villas are called to work positions 20% less than the inhabitants of formal neighborhoods.

## B. Tables

**Table B1:** Socioeconomic characteristics by area

Variable	(1) Villa	(2) Barrio	(3) Rest of the city
Income (ARP)	38674.3 (26085.4)	34326.9 (13757.6)	81766.0 (68871.9)
Employed (%)	64.1 (48.0)	68.4 (46.5)	79.0 (40.7)
Toilet/sewage (%)	90.3 (29.6)	99.3 (8.4)	99.8 (4.1)
Solid roof (%)	94.2 (23.3)	98.6 (11.6)	99.8 (4.9)
Use public transport (%)	88.3 (32.1)	97.2 (16.4)	98.8 (10.8)
Formal electricity (%)	29.9 (45.8)	99.5 (7.3)	100.0 (1.3)
Migrant (%)	56.5 (49.6)	20.6 (40.5)	13.0 (33.7)
Primary completed (%)	88.9 (31.4)	98.1 (13.7)	99.4 (7.9)
Secondary completed (%)	36.9 (48.3)	67.3 (46.9)	88.8 (31.6)
Population (18-65)	125,649	535,042	1,247,815

*Source:* Own calculations based on the Annual Household Survey of the City of Buenos Aires (2019).

*Note:* The table presents summary mean and standard deviations (in parentheses) of a set of socioeconomic characteristics by area. Column (1) reports summary statistics for the individuals living in villas, proxied using the survey data as the informal part of the Comunas in which the villa candidates are located; column (2) reports summary statistics for barrio residents proxied with data from the formal areas of the Comunas in which the barrio candidates are located (with the sample restricted to the bottom half of the population, in terms of household income); column (3) reports summary statistics for the formal areas of Buenos Aires for the remaining Comunas in the city. Income is household income measured in Argentinian pesos of 2019. Toilet/sewage refers to whether or not the toilet in the residence is connected to a municipal sewage system. Primary completed is a dummy variable indicating whether the person has completed primary school; Secondary completed indicates whether the person has completed secondary school.

**Table B2: Effects of Discrimination by Subsets of Trials in the Experiment**

	(1)	(3)	(3)	(4)
	Trials 1-2	Trials 3-4	Trials 5-6	Trials 7-8
<b>A. Callbacks:</b>				
Discrimination coeff.	-0.128*	-0.234***	-0.175**	-0.130
	(0.071)	(0.070)	(0.070)	(0.087)
Mean Barrio				
Observations	1062	1046	1042	1020
<b>B. Fit for the job:</b>				
Discrimination coeff.	-0.321***	-0.224**	-0.232***	-0.220*
	(0.094)	(0.104)	(0.088)	(0.112)
Mean Barrio				
Observations	1062	1046	1042	1020
<b>C. Wages:</b>				
Discrimination coeff.	-0.025***	-0.012	-0.016*	0.004
	(0.009)	(0.012)	(0.009)	(0.022)
Mean Barrio				
Observations	1062	1046	1042	1020
<b>Model specification</b>				
Applicants' characteristics	YES	YES	YES	YES
Position fixed effects	YES	YES	YES	YES

*Note:* The table shows estimates of the discrimination effect (computed using OLS regressions) for the sets of trials indicated. All regressions include observations for the first eight rounds of the experiment. In panel A, the dependent variables are dummy variables indicating whether the candidate was selected ("called back") for the position. In panel B, the dependent variable represents the candidate's "fit for the job," measured on a scale of 1 to 10. In panel C, the dependent variable is the natural logarithm of the wage proposed for the candidates. Standard errors clustered at the recruiter level are reported in parentheses. *Applicants' characteristics* include months and years of experience, commuting time, average income, and share who have completed secondary education. \*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$

**Table B3:** Effects of Discrimination, With Productivity held Constant

	(1) Without adjustment In “fit for the job”	(2) With adjustment In “fit for the job”
<b>A. Callbacks:</b>		
Discrimination coeff.	-0.164*** (0.037)	-0.131*** (0.034)
Mean Barrio	0.58	0.58
Observations	4170	4170
<b>B. Wages:</b>		
Discrimination coeff.	-0.013** (0.006)	- 0.007 (0.005)
Mean Barrio	11.11	11.11
Observations	4170	4170
<b>Model specification</b>		
Applicants’ characteristics	YES	YES
Position fixed effects	YES	YES

*Note:* The values in the table are OLS coefficients that identify the mean difference in the outcomes associated to candidates from *villas* and *barrios*. The regression in column 2 isolates the effect of “taste-based” discrimination by controlling for “fit for the job.” All regressions include observations for the first eight rounds of the experiment. In panel A, the dependent variables are dummy variables indicating whether the candidate was selected (“called back”) for the position. In panel B, the dependent variable represents the candidate’s “fit for the job,” measured on a scale of 1 to 10. In panel B, the dependent variable is the natural logarithm of the wage proposed for the candidates. Standard errors clustered at the recruiter level are reported in parentheses. *Applicants’ characteristics* include months and years of experience, commuting time, average income, and share who have completed secondary education. \*p<.10, \*\* p < .05, \*\*\* p < .01.

**Table B4:** Studying Functional Forms: Recruiters' Characteristics

	(1)	(2)	(3)	(4)	(5)
	M5	M4	M3	M2	M1
	b/se	b/se	b/se	b/se	b/se
Born in Argentina	-0.045 (0.115)	-0.058 (0.113)	-0.090 (0.112)	-0.118 (0.108)	-0.116 (0.104)
Degree in HR	0.150** (0.071)	0.140** (0.070)	0.132* (0.068)	0.134** (0.067)	0.133** (0.066)
Employed	-0.008 (0.082)	-0.020 (0.080)	-0.040 (0.078)	-0.051 (0.076)	-0.062 (0.074)
Gender: Female	-0.023 (0.081)	-0.028 (0.081)	-0.033 (0.081)	-0.033 (0.078)	-0.034 (0.076)
Age <sup>1</sup>	-0.770** (0.354)	-0.034 (0.109)	-0.055 (0.048)	-0.030 (0.020)	-0.002 (0.005)
Age <sup>2</sup>	0.081** (0.040)	0.001 (0.008)	0.002 (0.002)	0.000 (0.000)	
Age <sup>3</sup>	-0.003** (0.002)	-0.000 (0.000)	-0.000 (0.000)		
Age <sup>4</sup>	0.000** (0.000)	0.000 (0.000)			
Age <sup>5</sup>	-0.000** (0.000)				
Conscientiousness <sup>1</sup>	0.253*** (0.095)	0.159** (0.080)	0.053 (0.066)	0.027 (0.046)	0.024 (0.042)
Conscientiousness <sup>2</sup>	-0.016 (0.104)	0.092 (0.069)	-0.010 (0.035)	0.006 (0.027)	
Conscientiousness <sup>3</sup>	-0.163** (0.068)	-0.069** (0.031)	-0.010 (0.019)		
Conscientiousness <sup>4</sup>	0.005 (0.031)	-0.031* (0.016)			
Conscientiousness <sup>5</sup>	0.020 (0.013)				
Agreeableness <sup>1</sup>	0.019 (0.073)	-0.006 (0.063)	-0.037 (0.053)	-0.076* (0.039)	-0.080** (0.038)
Agreeableness <sup>2</sup>	0.019 (0.068)	0.074 (0.049)	0.016 (0.028)	0.019 (0.023)	
Agreeableness <sup>3</sup>	-0.053 (0.037)	-0.024 (0.019)	-0.013 (0.012)		
Agreeableness <sup>4</sup>	0.001 (0.014)	-0.011 (0.007)			
Agreeableness <sup>5</sup>	0.005 (0.004)				
Extroversion <sup>1</sup>	-0.170* (0.093)	-0.113* (0.068)	-0.040 (0.063)	0.022 (0.042)	0.018 (0.040)
Extroversion <sup>2</sup>	-0.101 (0.073)	-0.121* (0.064)	-0.009 (0.028)	-0.017 (0.025)	
Extroversion <sup>3</sup>	0.100 (0.063)	0.054*** (0.021)	0.022 (0.016)		
Extroversion <sup>4</sup>	0.020 (0.016)	0.027** (0.012)			
Extroversion <sup>5</sup>	-0.007 (0.009)				
Neuroticism <sup>1</sup>	0.183** (0.089)	0.149** (0.067)	0.078 (0.063)	0.023 (0.043)	0.011 (0.040)
Neuroticism <sup>2</sup>	-0.038 (0.070)	-0.070 (0.056)	0.022 (0.029)	0.007 (0.026)	
Neuroticism <sup>3</sup>	-0.071 (0.052)	-0.049** (0.020)	-0.015 (0.016)		
Neuroticism <sup>4</sup>	0.014 (0.015)	0.022** (0.010)			
Neuroticism <sup>5</sup>	0.004 (0.007)				
Cognitive ability <sup>1</sup>	0.160* (0.087)	0.009 (0.058)	0.023 (0.056)	0.019 (0.035)	0.002 (0.034)
Cognitive ability <sup>2</sup>	-0.101 (0.065)	-0.065 (0.061)	-0.013 (0.028)	-0.001 (0.025)	
Cognitive ability <sup>3</sup>	-0.122** (0.061)	0.007 (0.018)	-0.001 (0.016)		
Cognitive ability <sup>4</sup>	0.021* (0.012)	0.008 (0.010)			
Cognitive ability <sup>5</sup>	0.016** (0.007)				
Observations	266	266	266	266	266

**Table B5: Vacancies**

Vacancy	General Objective	Specific functions	Technical knowledge	Education
Professional Accountant	Professional of administration, finance, accounting for tasks in the company.	Attention to corporate clients; tax settlement; AFIP requirements; Audit planning; detailed tests and issuance of financial statements.	Use of SIAP applications (AFIP, AGIP, ARBA, CIAPRE, etc.) adjustment for inflation; Excellent handling of Excel.	University education in Accounting, Administration or related. Experience: 3 years.
Accounting Assistant	Assistant for the accounting area of the company.	Assistance to the accounting area in tax settlement; AFIP requirements; Audit planning; detailed tests; issuance of financial statements, etc.	Excellent management of Excel, referential knowledge of applications (AFIP, AGIP, ARBA, CIAPRE, etc.)	Newly received professional or last year student of administration, finance or accounting for tasks in the company. Experience: Valued but not exclusive.
System Engineer	Information technology professional for the area of systems and control of back- end/frontend.	Responsible for horizontal services and functional programming techniques; AWS Integration and Deployment; Maintenance of data storage infrastructure.	REST Architecture; SCRUM Methodology; Javascript; Node JS; Java; General knowledge of HTML and CSS web and mobile applications.	University education in Systems Engineering, Computing, Computer Science or related. Experience: 2 years
Telephone sales operator	Call Center operator for sales of consulting services to small merchants.	Direct contact with potential clients of the consultancy.	Demonstrated communication and customer management skills. Teamwork. Multitasking. Knowledge in sales strategies.	Commercial Expert. Experience: 2 years in similar tasks.
Nurse Practitioner	In charge of the health service of the consultant.	Direct attention of employees in the private health service of the consultant.	Knowledge of outpatient care; Medication supply; Control of vital signs; Knowledge of first aid.	Bachelor's Degree in Nursing with provincial or national registration recognized by the Ministry of Health with a stamp up to date. Experience: 3 years
Executive Chef	Executive kitchen/dining room manager	Operational kitchen management. Supervision of purchases and supplies. Supervision of personnel with the aim of providing service excellence to the executive staff. Menu design. Budgeting and inventory control.	Leadership, proactivity, creativity, and high concept of customer service. Knowledge of bromatological rules, safety, and hygiene.	Professional of the gastro- nomic area, Chef, Bachelor or technician in gastronomic administration or related careers. Experience: 3 years
Kitchen Assistant/Waitresses	Assistant to the Chef in charge in the kitchen/executive dining room.	Kitchen assistance. Provide excellence of service to the executive staff.	Leadership, proactivity, creativity and high concept of customer service. Knowledge of food management, safety and hygiene.	Bachelor. Experience: 2 years
Corporate Travel Agent	National and international corporate travel officer for the professional and executive staff of the consultancy.	Responsible for the area of ticket issuance, reservations, transfers and per diems.	Knowledge of CONCUR systems Good command of the English language; Knowledge of CBT corporate tools; Knowledge of TMS travel management tools.	Degree in tourism or related hospitality. Experience 3 years.
Electrical Technician	In charge of the maintenance and repair services of electrical installations and components of the office spaces of the consultant.	Maintenance of single-phase and three-phase installations; Maintenance of machines, tools, elevators, and lighting.	Knowledge in corrective /preventive Electrical maintenance. Knowledge in pneumatics, interpretation of plans, analysis, and diagnosis of faults; Knowledge in electrical equipment, elevators, variable frequency drives, electrical panels, etc.	Electromechanical technician Master of works or related. Experience: 5 years
Cleaning Staff	In charge of cleaning service of offices and common areas of the consultant.	Cleaning of corporate offices, bathrooms, changing rooms and surfaces; Sanitization of spaces; Order and cleaning of tanks	Current health book; Knowledge of cleaning materials and supplies; Proactivity and problem-solving ability; Knowledge and experience, not exclusive in cleaning equipment (rotary, polish, pressure washer, vacuum cleaner)	Bachelor. Experience: Desirable, not exclusive.



**Table B6: Profiles of the Synthetic Candidates**

	Barrio profile	Villa profile
Vacancy	Professional Accountant	
Name	Joaquín Ferreyra	Martin Gomez
D. of birth	12/08/1992	25/7/1992
Sex	Male	Male
Nationality	Argentina	Argentina
Address	Av. Gral. Francisco Fernández de la Cruz 3099, CABA	Manzana 104, Casa 28, Villa 31, CABA.
Education	- Public accountant. University of Buenos Aires (UBA) - Faculty of Economic Sciences. Graduation 2017. - School of Commerce No. 19 Juan Montalvo.	- Public accountant. University of Buenos Aires - Faculty of Cs. Economic. Graduation 2017. - School of Commerce No. 31 D.E. 9.
Work experience	- Pharmacy Av. Gran San Juan, Accounting Assistant. February 2018 - PRESENT, City of Buenos Aires. Tasks performed: Accounting record of documents. Review of payment list, vouchers, checks and account records. Archiving of accounting documents for use and internal control - Assistential Health: Liquidation of salaries. November 2016 - January 2018. City of Buenos Aires. Tasks performed: Settlement of salaries and social charges. - La Dolce S.R.L, payment of suppliers. June 2015 - October 2016. Tasks performed: Loading of data, invoices and remittances. Payment to Suppliers and control of current accounts. Control audits. Inventories.	Librería Ofigráfica: Payment to suppliers, accounting assistant. Activities carried out: Management of supplier agenda, payment scheduling, review and monitoring of invoices. Accounting assistant. April 2017 - PRESENT.
Additional information	Branch of economic activity: Finance Years of vocational training: 5 Years of work experience: 6 years	- Wholesaler San Telmo S.R.L. Settlement of salaries. Activities carried out: Settlement of salaries and charges through Tango. May 2015 - April 2017. - Sanatorium Dr. Julio Méndez: Administrative Secretary. Activities carried out: Reception and sending of documents, management of agenda, attention and referral of calls, reception of visits, daily accounting. June 2013 - May 2015. Branch of economic activity: Finance Years of vocational training: 5 Years of work experience: 8 years
Vacancy	Accounting Assistant	
Name	Florence Lopez	Laura Perez
D. of birth	25/1/1998	14/05/1998
Sex	Female	Female
Nationality	Argentina	Argentina
Address	Mexico 754 (Montserrat, CABA).	Manzana 10, Casa 54, Villa 21-24, Barracas, CABA.
Education	- Business Administration - Faculty of Economic Sciences, University of Buenos Aires (UBA). Current. - School of Commerce Number 01 Joaquín V. González.	- Business Administration. University of Buenos Aires. Current. - School of Commerce Number N° 3 DE 7 Hipólito Vieytes.
Work Experience	- Librería Mercurio: Salary settlement. November 2019 - Present. City of Buenos Aires. Tasks performed: Settlement of salaries and social charges.	- Vase S.A: Liquidation of salaries. Activities carried out: Settlement of salaries and charges through Tango. May 2019 - Present.
Additional information	- Diarco Barrio, administrative secretary June 2018 - October 2019. Tasks performed: Reception of visits, management of agenda, attention and referral of calls. Loading of data, invoices and remittances. Branch of economic activity: Finance Years of vocational training: 5 Years of work experience: 3 years	- Acrí Aberturas: Administrative Secretary. Activities carried out: Reception and sending of documents, management of agenda, attention and referral of calls, reception of visits, daily accounting. June 2018 - May 2019. Branch of economic activity: Finance Years of vocational training: 5 Years of work experience: 3 years
Vacancy	System Engineer	
Name	Eugenio García 8/8/1990	Francisco Rodriguez 25/9/90
D. of birth	Male	Male
Sex	Male	Male
Nationality	Argentina	Argentina
Address	Murguiondo 4500, C1439 Lugano, Buenos Aires	Manzana 28, Casa 14, Villa 20, Lugano, Buenos Aires.
Education	- Information Systems Engineer. National Technological University (UTN). Graduation 2018. - Technical School N° 26 Swiss Confederation. Technical college specialized in computer science and programming. Graduation 2010.	- Computer Systems Engineer. Inter-American Open University (UAI). Graduation 2018. - Specialized Bachelor in Computer Science. Esteban Echever. Graduation: 2010.
Work experience	- NEOCOMPLEX CABA, Web developer. Tasks performed: development of the company's website, updating of the contents, providing support to website clients, maintenance of mail servers, giving technological solutions to other companies. February 2017- PRESENT - COTEL LTDA, Webmaster. Tasks performed: development of the company's website, customer service, technical support, writing scripts for alert and monitoring systems. December 2015 - January 2017 Villa Gesell, Buenos Aires - LEMONDATA: Java Front End Developer. Tasks performed: development of new modules, the internal management system, adjustments of pre-existing functionalities. Bug fixes. June 2013 - October 2015 Capital Federal, Buenos Aires	- Insucom Bookstore, Buenos Aires: Team leader. Activities carried out: Development of the computer and web area of the company, C# and SQL. April 2017 - PRESENT.
Additional information	Branch of economic activity: Information Technology Years of vocational training: 5 Years of work experience: 8 years	- Wald S.A., Buenos Aires: Programming Analyst.- Activities carried out: Visual Basic Design. NET and C#. May 2015 - April 2017. - Centro Médico Monserrat, Buenos Aires: JavaScript Developer / React, Frontend. Activities carried out: Development of web page and maintenance of the same. June 2013 - May 2015. Branch of economic activity: Information Technology Years of vocational training: 5 Years of work experience: 8 years

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Table B6 - continued from previous page

	Barrio profile	Villa profile
<b>Vacancy</b>	<b>Telephone sales operator</b>	
Name	Lucía Fernández	Rosario Martínez
D. of birth	8/12/1992	15/07/1992
Sex	Female	Female
Nationality	Argentina	Argentina
Address	Pieres 351, C1408 Liniers, Buenos Aires.	Manzana 2, Casa 56, Los Piletones, Buenos Aires.
Education	- Commercial Expert with Accounting Orientation. School of Commerce No. 5 José de San Martín, City of Buenos Aires. Graduation 2010.	- Commercial Expert with Tax Accounting Specialization. School of Commerce N° 19 DE 8 "Juan Montalvo". Graduation: 2010.
Work experience	- Stefanini Argentina SRL, Telephone operator. Customer Service - Sale of plans and services. February 2019 - Present. - Clothing store BIEN DE AMORES, Sales at the counter. Face-to-face customer service - sale of clothing and accessories. February 2017 - January 2019. - Diarco Barrio, Counter Sales. Customer service, advice, sales. November 2016 - January 2017.	- Moha Inc., Buenos Aires: Sales. Activities carried out: Sales in premises, attention to the public. October 2019 - PRESENT. - LIBRERIA EL TINTERO, Buenos Aires: Counter sales. Activities carried out: Sales at the counter and to the client portfolio. April 2017 - September 2019. - EPSAN S.A, Buenos Aires: Telephone operator. Activities carried out: Telephone sales and attention. May 2015 - April 2017.
Additional information	Branch of economic activity: Marketing and sales Years of vocational training: 5 Years of work experience: 7 years	Branch of economic activity: Marketing and sales Years of vocational training: 5 Years of work experience: 8 years
<b>Vacancy</b>	<b>Nurse Practitioner</b>	
Name	Sabrina Dominguez	Carla Bertorello 6/3/1992
D. of birth	28/01/1992	Female
Sex	Female	Argentina
Nationality	Argentina	Manzana 30, Casa 29, Villa 15, Buenos Aires.
Address	Av. Lisandro de la Torre 2096, C1440 Mataderos, Buenos Aires.	- Degree in Nursing. Faculty of Medicine - University of Buenos Aires. Graduation 2011.
Education	- Degree in nursing. University of Buenos Aires (UBA) Graduation 2011. - Baccalaureate with orientation in health. Luján Porteño High School, Buenos Aires City. Graduation 2007.  - Refresher course in perinatal care. General Hospital of Agudos Dr. Teodoro Alvarez. 2018 January - December.	- Bachelor with Orientation in Social Sciences and Humanities. School of Commerce N° 1 DE 8 "José Figueroa Alcorta". Graduation: 2007. - Integrated practices. Intensive Care Unit and British Coronary Hospital. August 2011.1.
Work experience	- ULME Núñez Clinic, Floor nurse. Tasks performed: Care of patients in rehabilitation. February 2017 - Present.  - Geriatric residential Life Full, Caregiver - Nurse. November 2012 - January 2017. City of Buenos Aires. Hygiene and comfort of residents, control of vital signs, recreation, supply and control of medication. - Geriatric residential Life Full, Caregiver - Nurse. November 2012 - January 2017. City of Buenos Aires. Hygiene and comfort of residents, control of vital signs, recreation, supply and control of medication.	- Geriatric Residence Sol de Otoño: Nursing assistant. Activities carried out: Supply of medication, care and hygiene to residents, control of nursing supplies. June 2012 - May 2016. - Alberto Balestrini Hospital : Nursing Assistant. Activities carried out: Supply of medication, care and hygiene to residents, control of nursing supplies. December 2011 - May 2016.
Additional information	Branch of economic activity: Health/social services and health Years of vocational training: 5 Years of work experience: 9 years	Branch of economic activity: Health/social services and health Years of vocational training: 5 Years of work experience: 9.5 years
<b>Vacancy</b>	<b>Executive Chef</b>	
Name	Pedro Sosa	Ramiro Barber 15/07/1990
D. of birth	14/7/1990	Male
Sex	Male	Argentina
Nationality	Argentina	Zavaleta 1129, Barrio Zavaleta, CABA.
Address	Av. Almte. Brown 938, Buenos Aires.	- Gato Dumas Institute, Technician in Gastronomy. Graduation 2014.
Education	- School of Commerce Number 01 Joaquín V. González.- Ice cream course. Professional Pastry School 2018. - Gastronomic Professional. Argentine Institute of Gastronomy (IAG) Graduation 2014.	- ISEGH, Professional Pastry Chef Graduation 2015.
Work experience	- Atuel Café, Head Chef. Tasks performed: coordination of personnel, dealing with suppliers, menu design. Buenos Aires, Argentina. JANUARY 2017 - Present. - Refugio Hostel - Mar del plata, Kitchen manager. Bariloche, Argentina. Tasks carried out: Pastries, bakery and breakfast dishes, bar service. MAY - DECEMBER 2016 - Capri Ice Cream Shop, Assistant of Master Ice Cream Maker. Ramos Mejía, Argentina. Tasks performed: Stock control, management of raw materials, management of the ice cream manufacturing process, flavor testing. JAN- UARY 2015 - APRIL 2016.	- Garay Parrilla, Head Chef. Tasks: Menu design, ordering and stock, coordination of work and kitchen staff. May 2015 - Present. - San Remo Hotel, Villa Gesell, Kitchen manager. Tasks: Preparation of breakfasts and lunch menu. August 2014 - April 2015. - La Parraca, Waiter. Tasks: Salon service, reception of suppliers, waitress. March - September 2014.
Additional information	Branch of economic activity: Gastronomic services Years of vocational training: 5 Years of work experience: 8 years	Branch of economic activity: Gastronomic services Years of vocational training: 5 Years of work experience: 9 years

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	Barrio profile	Villa profile
<b>Vacancy</b>	<b>Kitchen Assistant/Waitress</b>	
Name	Paola Sosa	Agustina Barber9/8/1993
D. of birth	9/8/1993	Female
Sex	Female	Argentina
Nationality	Argentina	Manzana 3, Casa 12, Villa Rodrigo Bueno.
Address	Av. Derqui 3865, C1407, Parque Avellaneda, CABA.	- Bachelor with Orientation in Social Sciences and Humanities. LICEO N° 1 JOSÉ FIGUEROA ALCORTA. Graduation 2010.
Education	- School of Commerce Number 08 Patricias Argentina.	- Latino Sandwich, Food Office Buenos Aires, Argentina. Tasks performed: Customer service, order preparation, salon service in general. JANUARY 2019 - Present.
Work experience	- La Pituca, Waitress. Tasks: Customer service May 2017 - Present.	- Cervecería López, Waitress and receptionist. Caballito, Buenos Aires. Tasks performed: Reception and customer service, realization of orders, salon service in general. MAY - DECEMBER 2018.
	- Che Lagarto Hostel - Mar del plata. Kitchen assistant and guest service Tasks: Preparation of breakfasts and lunch menu. August 2016 - April 2017.	- Due Ice Cream Shop, Cashier and assistant Ramos Mejía, Argentina. Tasks performed: Collection of products from customers. Stock control, management of raw materials, attention to suppliers, order and general cleaning. JANUARY 2017 - APRIL 2018.
	- La Parraca, Waitress and receptionist. Tasks: Reception and attention of salon, reception of suppliers, waitress. March - September 2016.	Branch of economic activity: Gastronomic servicesYears of vocational training: 5
Additional information	Branch of economic activity: Gastronomic servicesYears of vocational training: 5	Years of work experience: 6 years
<b>Vacancy</b>	<b>Corporate Travel Agent</b>	
Name	Lorena Sánchez 8/12/1992	Soledad Daniele
D. of birth	8/12/1992	8/12/1992
Sex	Female	Female
Nationality	Argentina	Argentina
Address	Avenida Avellaneda 2899, Floresta, Buenos Aires.	Manzana 2, casa 5, Villa Playón de Chacarita, Buenos Aires.
Education	- Universidad Argentina de la Empresa (UADE), Bachelor's Degree in Tourism and Hospitality. Graduation 2014.	- Degree in Hospitality. Inter-American Open University. Graduation 2014.
	- School of Commerce N° 19 DE 8 "Juan Montalvo", Commercial Expert with Tax Accounting Specialization. Graduation 2010.	- Bachelor with Orientation in Social Sciences and Humanities. LICEO N° 1 JOSÉ FIGUEROA ALCORTA. Graduation 2010.
Work experience	- Palermo Bridge Hotel, Receptionist. Tasks: Check in and check outs, reservations, collections, reception and customer service. Night entry control, breakfast preparation. May 2017 - Present.	- Course of organization of events. IEA Institute. 2018.
	- Che Lagarto Hostel - Mar del plata, Staff coordination. Tasks: Coordination of schedules, training and supervision of personnel. August 2016 - April 2017.	- Enjoy Buenos Aires, Tourist Guide. City of Buenos Aires, Argentina Tasks carried out: Coordination of activities, management of groups, guide by sites of interest. MAY 2018 - PRESENT.
	- Mendoza Travel, Excursion Guide Tasks performed: High mountain excursions, wineries and vineyards. June 2015 - October 2017.	- Hotel de Cine Las Golondrinas, Receptionist season. Villa Gesell, Buenos Aires, Argentina. Tasks carried out: Registration of guests, tourist advice, telephone attention, management of reservations and attention to the general public. DECEMBER 2017 - APRIL 2018.
Additional information	Branch of economic activity: Culture/tourism and education	- Selina Bariloche, Operational Manager Bariloche, Argentina. Tasks performed: Planning and organization of the general tasks of the hotel, direction and supervision of the staff. MAY 2015 - DECEMBER 2017
	Years of vocational training: 5	Branch of economic activity: Culture/tourism and education
	Years of work experience: 6 years	Years of vocational training: 5
		Years of work experience: 6 years
<b>Vacancy</b>	<b>Electrical Technician</b>	
Name	Agustin Pereyra2/5/1992	Gonzalo Flores
D. of birth	2/5/1992	20/11/1992
Sex	Male	Male
Nationality	Argentina	Argentina
Address	Esquiú 1215, Nueva Pompeya, CABA.	Manzana 1, Casa 109, Villa 1-11-14, CABA.
Education	Electromechanical Technician. Technical School No. 17 Brig. Gral. Cornelio de Saavedra, City of Buenos Aires. Graduation 2007.	- Master of works. Technical School N° 9 DE 7 "Eng. Luis Huergo". Graduation: 2007.
Work experience	- Electrician of Category 3-10k. Leicester School. Graduation 2014.	-Level 3 electrical installer. National Technological University-UTN.BA. Graduation 2016.
	- Fantoche SA, Miscellaneous addresses, Miscellaneous electrical installations. Tasks performed: Repair of damaged circuits and installation of new circuits of sockets and lights. February 2014 - PRESENT, City of Buenos Aires.	- Aguilar Bookstore, Buenos Aires: Electrical maintenance. Activities carried out: Repairs, maintenance and installation of the electrical lines of the premises. September 2018.
	-Cubar: Security personnel. Tasks performed: Prevention and care of the facilities. November 2017 - PRESENT. City of Buenos Aires.	Ase Conecta S.A, Buenos Aires: Electrical installation. Activities carried out: Installation of office circuits. May 2018.
	- Jager Palermo: Security personnel. Tasks performed: Prevention and care of the facilities. June 2014 - October 2017.	- Kika, Buenos Aires: Security. Activities carried out: Security and prevention personnel. April 2018 - Present.
Additional information	Branch of economic activity: Culture/tourism and education	Branch of economic activity: Culture/tourism and education
	Years of vocational training: 5	Years of vocational training: 5
	Years of work experience: 10 years	Years of work experience: 8 years

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	Barrio profile	Villa profile
Vacancy	Cleaning Staff	
Name	Micaela Palacios	Vanina Medina
D. of birth	8/12/1989	25/07/1990
Sex	Female	Female
Nationality	Argentina	Argentina
Address	Av. Sáenz 898, C1437, Nueva Pompeya, CABA.	Manzana 21, Casa 34, Villa 1-11-14, CABA.
Education	- N2 José Hernández Secondary School, City of Buenos Aires. Graduation 2010 - Seamstress. Sewing Course - School of Haute Couture. Second semester 2016	- Baccalaureate. School No. 2 D.E. 1 "Domingo F. Sarmiento", CABA. Graduation: 2010.- - Seamstress. Sewing Course - School of Haute Couture. Second semester 2016.
Work experience	- Clothing La Toile SRL, textile manufacturer. February 2018 - PRESENT, City of Buenos Aires. Tasks performed: Confection with a straight machine. - Monica Brenta, beauty center. March 2017 - January 2018. City of Buenos Aires. Tasks performed: hair removal and massages. - Cleaning Company - Star Union, cleaning staff. August 2016 - February 2017. City of Buenos Aires. Tasks performed: Cleaning offices and shopping malls.	- Indumentaria Vasalú SRL, textile manufacturer. January 2018 - PRESENT, City of Buenos Aires. Tasks performed: Confection with a straight machine. - Integral Beauty Center. February 2017 - December 2017. City of Buenos Aires. Tasks performed: manicures and pedicure. - Toilet Argentina, cleaning staff. September 2016 - January 2017. City of Buenos Aires. Tasks performed: Cleaning offices and shopping malls.
Additional information	Branch of economic activity: Basic production Years of vocational training: 5 Years of work experience: 7 years	Branch of economic activity: Basic production Years of vocational training: 5 Years of work experience: 7 years