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#### Abstract

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## What Job Would You Apply to?

## Findings on the Impact of Language on Job Searches

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# What Job Would You Apply to? Findings on the Impact of Language on Job Searches 

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February 28, 2023


#### Abstract

This study tests four "light touch" interventions in the language used in job posts of male- dominated occupations to attract female workers using a discrete choice experiment. This experiment had more than 5000 participants from five Latin American countries. We test two possible mechanisms: the gender-stereotypes related to job skills and the use of inclusive language. We find that language matters, and men and women value information and inclusive language in job advertisements. However, women are more sensitive in this regard. We test the effect of simply aggregating irrelevant, but additional words to the job ad, and find that when the inclusive language in the ad is subtle, the effect of having more words is very important. But it decreases when the language signals a strong preference for an inclusive work environment. These findings highlight the importance of language and the type of information presented in job advertisements in attracting a gender-balanced workforce.


## JEL Codes: J16, J24, J63, C91, M54

Keywords: Language interventions, access to employment, labor discrimination, job ads, occupational segregation.

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## 1 Introduction

The Latin America and Caribbean (LAC) region has made progress in reducing gender labor disparities, but still lags behind the progress made in North America and Europe. According to data from the Inter-American Development Bank and the Social Indicators Management System (BID-SIMS) (BID-SIMS, 2022), the labor participation gap in the LAC region is approximately 22 percentage points, with female participation rate at 48 percent compared to 70 percent among men. Additionally, the active female population experiences higher levels of unemployment (8 percent) compared to men (6 percent). Occupational segregation plays a significant role in the persistence of the gender wage gap in the region, as over 30 percent of employed women work in care sectors with lower levels of pay, while only 6 percent of employed men do. Conversely, industries such as agriculture and construction employ a disproportionate number of men (over 30 percent) compared to women (8 percent) (Bustelo et al., 2019).

In this study, we examine the language barriers that contribute to unfavorable labor market outcomes for women, which are often rooted in individual, organizational, or institutional factors. As shown by Bustelo et al. (2020b), these barriers include the mismatch between labor demand and supply, biases in the job search process, barriers in the selection process, and institutional and structural factors.

We test how the use of language in a job post affects the probability of men and women applying for that position, measuring if language functions and operates as a barrier to entry to jobs for women, particularly in sectors and occupations in which women are underrepresented. To this end, we conducted a Discrete Choice Experiment (DCE), which uses a stated-preference approach instead of asking direct questions about the job characteristics. This method presents participants with a series of decision sets by varying the language used in the ads. The choice of each individual reflects their
true preferences regarding some of the implicit attributes or characteristics in the job advertisements.

Language barriers have been found to play a role in the job search process and can impact a job seeker's decision to apply or not to a job. Previous research divides these barriers into explicit and implicit forms. Explicit language barriers are represented by language in job advertisements that directly prefer or require a specific gender (ILO, 2017). On the other hand, implicit language barriers perpetuate gender role stereotypes and can discourage certain groups from applying, even if they possess the necessary skills and abilities (Flory et al., 2014; Gaucher et al., 2011; Hodel et al., 2017; Horvath and Sczesny, 2016; Leibbrandt and List, 2014).

Previous research has used the stated-preference approach to measure workers' valuation of different job characteristics, such as flexibility and telecommuting opportunities Maestas et al. (2018). Our study focuses on how job ad language unintentionally reflects gender role stereotypes by varying language related to candidate skills and the use of language that signals preferences for gender equality and inclusion.

In this way, we assess and contrast the preferences of men and women for those attributes that are immersed in the language of the vacancy announcements. Each of the job ad contains words that characterize language oriented to men, is commonly preferred by them or is associated with jobs often held by them. We compare this gender-biased type of job ad, baseline, with ads that contain similar information but in a more genderneutral form.

With our experimental design, we aim to assess the effects of four "light touch" interventions in gender-neutral language by presenting male and female job candidates with job listings featuring the following information: male-oriented skill (Base), skill description $\left(T_{1}\right)$, no skill specification $\left(T_{2}\right)$, diversity statement $\left(T_{3}\right)$, and gender-inclusive
language $\left(T_{4}\right)$.
By comparing with the base group (Base) we can establish causal inferences regarding the impact of: (i) the skill description ( $T_{1}$-Base); (ii) no skill stated in the ad ( $T_{2}$-Base); (iii) the general-inclusive reinforcement ( $T_{3}$-Base); and (iv) the gender-inclusive reinforcement ( $T_{4}$-Base). With these measures, we are able to provide evidence of the existence of gender-biased language and its effects on employment preferences under different dimensions of language use. We measure workers' preferences for jobs that in their ads vary the way of describing a required skill and how that can influence the probability of applying for a job in five Latin American countries: Argentina, Chile, Colombia, Mexico and Peru. All other aspects of the job are intentionally kept constant in the job ads, and are excluded from the analysis.

Our study aims to contribute to the literature by focusing on the effects of language barriers on women's labor market outcomes. Utilizing large-scale data from online jobsearch engines, previous studies have established the prevalence of explicit language requirements in job advertisements, particularly in low- and middle-income countries (Bustelo et al., 2020a; González-Velosa et al., 2012; Hodel et al., 2017; Kuhn and Shen, 2013). These studies have demonstrated a positive correlation between the explicitness of language barriers and the level of gender discrimination in job ads, particularly in lowskilled occupations as indicated by the level of education, experience, or remuneration required by the employer. However, this correlation is shown to be weaker in higherskilled occupations.

The literature suggests that the prevalence of explicit physical appearance requirements in job ads targeted towards women, as opposed to those targeted towards men, contributes to perpetuating gender-based discrimination in the labor market (Bustelo et al., 2020a; Kuhn and Shen, 2013; Ningrum et al., 2020). Empirical studies have also identified disparities in the gender distribution of job postings based on the level of
decision-making responsibility required in the job vacancy. This was the case in Argentina where a greater proportion of these job ads were targeted to men (Carranza and Peralta, 2012). Furthermore, Arceo-Gomez et al. (2022) report that in Mexico, job postings with stronger gender stereotype language were found to be more prevalent in lower-paying occupations, exacerbating the gender wage gap in specific occupations.

The literature on implicit barriers to gender equality in the labor market suggests that the language used in job advertisements may also perpetuate gender disparities (Card et al., 2021; Diaz et al., 2020; Gaucher et al., 2011; Horvath and Sczesny, 2016; Tang et al., 2017). For instance, Gaucher et al. (2011) demonstrates that advertisements for maledominated occupations tend to feature words associated with masculine stereotypes, such as "leader," "competitive," or "dominant," more frequently than advertisements for female-dominated positions. This study experimentally examines the impact of these words on men's and women's application rates and finds that male-oriented language discourages women from applying for these types of jobs.

However, Tang et al. (2017) suggests that while the use of language with a masculine bias continues in advertisements for leadership positions, there has been an increase in the use of neutral words in job listings due to heightened awareness of the effect of language. Furthermore, the study finds that individuals can detect implicit gender bias in job advertisements, but it only has a small effect on their decision to apply for a position. Additionally, Card et al. (2021) analyzes the impact of a campaign to eliminate gender preferences in job advertisements in Austria and finds that this led to an increase in workplace diversity by raising the proportion of women hired for male-dominated jobs.

Finally, Horvath and Sczesny (2016) examines the relationship between application rates and the language used in job advertisements in German, a language with grammatical gender. The study finds that women are less likely to apply to jobs that use the
masculine form of words, and more likely to apply to advertisements that use both the masculine and feminine forms. Similarly, Jakiela and Ozier (2018) finds a lower rate of female labor participation in countries that use languages with grammatical gender, as is the case of Spanish.

There is almost no evidence for Latin America and the Caribbean and for the Spanish language on implicit language barriers in job ads. Observational evidence from Colombia indicates that the language used in an ad discourages women from applying to a job post when the ad is written using the feminine word and the position offers stable contractual conditions (fixed salary, fixed- or indefinite-term contract, and flexible hours) (Diaz et al., 2020). Similarly, Gaucher et al. (2011) found that the use of words associated with competitiveness discouraged women from applying. In a recent study in Mexico, Arceo-Gomez et al. (2022) show a 13 percent reduction in the salaries offered in job ads that use "communal" or female-related words, while salaries offered in job ads that use more "agentic" words, usually related to men, are 8 percent lower than job ads without those words. The authors estimate a gender wage gap of 8 to 35 percentage points when no explicit gender target was specified and of up to 13 percentage points when a specific gender was required. In all these cases, there is evidence of the existence of both, implicit and explicit, biases in the language used in job posts.

Our study provides novel insights into the field of gender-biased language in job advertisements by diverging from previous research in several key ways. To our knowledge, it is the first experiment that measures the preferences of job seekers for different ways of measuring gender biases in the language used in job ads, as opposed to observational studies that analyze the relationship between gender-biased language and employment access. In our study design, we varied the use of gender-biased language related to the skills required for the job position. Secondly, it is the first study to examine the use of gender-biased language on labor market decisions in the Spanish language.

Thirdly, our study examines the effect of language that may signal preferences for gender equality and inclusion, rather than only comparing the use of feminine and masculine words. We incorporate variations in the use of language that may signal preferences for gender equality and inclusion in the job environment and examine how these are more or less attractive to women and men. Fourthly, our study tests the impact of providing additional information unrelated to the skills required for the job and compares it with a job ad with gender-neutral language. Finally, we provide evidence of male and female preferences for gender-neutral language across five different countries in Latin America, with varying labor market conditions and gender norms, with a specific focus on male-dominated occupations. The experiment focuses exclusively on male-dominated jobs since it supports the policy objective of fostering gender equality in these sectors and roles.

Our experiment yields four key insights. First, the language used in job ads matters for both men and women when applying for a job. Second, women exhibit greater sensitivity to signals of inclusivity and diversity in jobs they are interested to apply, in comparison to men. Third, while country-specific variations exist, the overall pattern and significance of the results remain consistent across our sample. Fourth, no notable differences are observed based on age or education level, except in the case of older men who exhibit a greater aversion to job ads that do not mention any specific skills. In addition, the observed increase in labor market participation due to the use of more inclusive language in job ads may also be influenced by the provision of additional information in these ads. To test for this, we used a placebo comparison for 10 percent of our sample, in which we added information that was not related to the use of inclusive language, nor to the skills required for the listed occupation. Our results indicate that the impact of adding more information to the job listing is stronger when the use of inclusive language is subtle, such as the use of both masculine and feminine spellings
or the description of job-related skills. However, this impact decreases as the language of diversity and inclusivity in the ads become more pronounced, signaling a strong preference for an inclusive workplace. Lastly, both men and women equally value the inclusion of more information and of signals of inclusivity in job ads, underscoring the importance of language in attracting a more diverse pool of applicants.

Our paper is organized as follows. The next section details the experimental set-up while section 3 presents the data and empirical methods employed. Subsequently, we present our results. The last section concludes.

## 2 Study Design

We conducted a Discrete Choice Experiment (DCE) to measure the effect of language utilized in job advertisements on the job application behavior of men and women in Latin America. Our study analyzed the probability of selecting a job to apply for when presented with a variety of sets of language-specific options.

Our study involved creating a fictitious baseline job ad in a male-dominated occupation using a male-oriented skill that is commonly used in these ads. We then compare this to job ads that use a more gender-neutral language for otherwise identical job postings. Our analysis focused on two main interventions. First, modifying the language used to describe a skill required for applicants in the job ad, or omitting it altogether, with the aim of reducing the influence of gender stereotypes. Second, utilizing genderneutral language to signal a commitment to inclusivity, such as using gender-inclusive sentences or employing gender-neutral language in the job ad, as follows:

## 1. Control:

- Base job ad: Male-oriented skill.


## 2. Skill-Stereotype

- $T_{1}$ : Skill's description -provides a description of the skill used in Base, but does not specify the skill.
- $T_{2}$ : No skill detailed -does not specify any skill in the job ad.


## 3. Inclusive work environment

- $T_{3}$ : Diversity statement -we use a phrase that explicitly states the firm's commitment to equal opportunities regardless of gender and other characteristics, but is unrelated to the skills re-quired for the occupation.
- $T_{4}$ : Gender-inclusive language -uses explicit language related to the feminine and masculine spelling of the skill.

Participants were exposed to nine decision sets, each consisting of pairs of hypothetical job postings that varied in terms of language. Each posting was designed to resemble those commonly found on job search engines and referred to a job within the sector and occupation that the participants had selected from a list. The job listing contained a general description of the position, information about the work schedule, holding constant the location of the job vacancy (downtown area). It did not include any other information regarding wages, the type of contract, or its duration. The reason for eliminating wages from the job postings is to avoid confounding factors related to income effects in the selection process. For this reason, we are able to measure the willingness of both men and women to apply for a job ad using a particular language, but not their willingness to pay for it.

In each decision set, participants were asked to choose between the baseline job advertisement, Base, and one of the light-touch interventions described earlier, with no opt-out option. The aim of excluding the opt-out option was to encourage participants
to make a choice between the two alternatives and provide more insights into their decision-making processes. Job seekers participants were told that the ads were fictitious. We randomly assigned two skills to each occupation chosen by the participant and created four decision sets, one for each treatment. To check for inattention, we randomly repeated one of the decision sets to evaluate if the answer was consistent. This resulted in a total of nine decision sets for each participant. In addition, we randomize by individual the position of the two job posts in each screen (left/right), and the order of appearance of all nine screens.

This design allows us to elicit revealed preferences for job ads that use different types of language, instead of measuring stated preferences of working-age job seekers in the five Latin American countries.

## Details

Our study focuses on male-dominated sectors. To select such occupations, we carefully identified the three sectors with the largest percentage of male workers, and within each sector, we chose two occupations that required different levels of education. These sectors and occupations were chosen due to the large concentration of men compared to the proportion of employed women in our countries of interest, as reported in the Global Gender Gap Report 2020 by the World Economic Forum (see Table 1). At the beginning of the experiment, each participant was asked to select a sector and an occupation based on their personal preference and interest.

Table 1. Sectors and Occupations

| Economic Sector | Occupations |
| :--- | :--- |
| Construction | Bricklayer <br> Electrician |
| Manufacturing | Operator |
|  | Operations supervisor |
| Information Technologies | Engineer <br> Software developer |

Next, we compiled a list of skills relevant to each occupation by drawing the most commonly used skills in our selected masculine occupations, from the list of skills reported in Gaucher et al. (2011). This study identifies the most commonly used words in job search materials for occupations classified as masculine. To ensure regional specificity, we then selected the three most frequently used skill in the job listings for each occupation on the major job portals across our sampled countries. This information is presented in Column 2 of Table 2. We validated the use of our choice of specific skills in each country during focus group sessions held in each country and with female and male job seekers. We confirmed that the occupations and skills used in our experimental design were understood and commonly used in all countries to construct identical job offers for the entire sample to ensure uniformity.

The first light-touch intervention, treatment $T_{1}$, uses the definition of the skill rather than the skill itself (See the list of skills and their definitions in Table 2). The underlying hypothesis of this approach is that while stereotypes might be associated to the actual skill, they may not necessarily be linked to its definition.

To further examine the role of stereotypes associated with the skill, the second light-

Table 2. Occupations, Skills and Definitions

| Occupations | Skill | Definition |
| :---: | :---: | :---: |
|  | Proactive | Takes the initiative and anticipates problems |
| Bricklayer | Autonomous | Ability to assume responsibilities, make decisions and offer solutions, independently |
| Electrician | Competent | Interest in knowing and mastering one's work |
| Operator | Proactive | Takes the initiative and anticipate problems |
|  | Autonomous | Ability to assume responsibilities, make decisions and offer solutions, independently |
|  | Determined | Acts decisively and confidently |
| Operations supervisor | Assertive | Ability to express one's opinions clearly and respectfully |
|  | Self-confident | Confident in one's ability and judgment to make decisions |
|  | Leader | Ability to influence, motivate and inspire your work team to achieve an objective |
| Developer | Persistent | Perseverance in fulfilling the proposed objectives |
|  | Competent | Interest in knowing and mastering one's work |
|  | Autonomous | Ability to assume responsibilities, make decisions and offer solutions, independently |
| Engineer | Determined | Acts decisively and confidently |
|  | Leader | Ability to influence, motivate and inspire your work team to achieve an objective |
|  | Competent | Interest in knowing and mastering one's work |

touch intervention, treatment $T_{2}$, was designed to assess the participant's reactions to the absence of the skill in the job post description. This intervention involves eliminating the skill from the job post completely. We want to test if by dropping the skill from the job ad, individuals with gender-neutral preferences will be more likely to apply to job ads without the male-dominated skill.

To explore the impact of using language that signals an inclusive environment can attract participant, the third light-touch intervention, treatment $T_{3}$, introduces an explicit diversity statement in the job ad while keeping the male-oriented skill unchanged. The following statement was included: "We are committed to providing equal opportunities in employment regardless of gender, sexual orientation, disability status, nationality, and age."1 We hypothesize that gender-inclusive applicants will be more likely to select this job ad regardless of the skill required in the job vacancy.

Finally, to assess the impact of using language that explicitly promotes gender inclusivity, the last light-touch intervention, treatment $T_{4}$, uses the feminine termination of the word in addition to the masculine. This is a feature that can be tested in Spanish grammar, in which nouns and adjectives can have distinct endings that specifically refer to men or women.

## Experimental Data Description

We conducted a survey of working-age men and women in five Latin American countries - Colombia, Peru, Mexico, Chile and Argentina - using the Ipsos Panel. The participants were selected from the panel and invited to participate in a 15-minute online survey of questions regarding the following topics: (i) basic demographics; (ii) laborrelated information, including current employment status and labor income; (iii) a Dis-

[^3]crete Choice Experiment (DCE) that measured the participant's preferences for job advertisements with different uses of language; and (iv) a set of questions aimed at measuring individuals perceptions of gender-bias in the skills used in the DCE.

After completing the demographic and labor sections, participants were instructed to assume they were searching for a job, to select one of the three economic sectors, and an occupation within the sector as listed in Table 1. The decision sets for each occupation contain combinations of job listings for two randomly selected 'masculine' skills' from the list in Table 2.

The first four choice sets compare one male-oriented skill used in the job ad with the remaining four alternatives - i.e., description of the skill; no skill; diversity statement; and gender-inclusive language. The next four choice sets compares the second randomly selected male-oriented skill with the same four treatment alternatives. Lastly, we randomly repeated one choice set from the eight alternatives described above in order to measure inattention. Table 3 shows an example of the four screens presented to each candidate. It is worth noting that all other factors in the job description that may be potentially important to job seekers, such as location and working hours, do not vary across the choice sets.

We recorded their nine selections. Then they moved to the last part of the questionnaire, which captures the perception of gender-bias in the skills used in the DCE. ${ }^{2}$

## 3 Empirical Methodology

Our data set consists of a panel of 18 job postings for each participant, two for each of the nine choice sets presented in the DCE. For each of these postings, we recorded the

[^4]Table 3. Example of Four Screens Shown to Participants (Occupation: Operations Supervisor, Skill: Assertive)

| Treatment <br> comparison | Job offer 1 | Job offer 2 |
| :--- | :--- | :--- |
| Base vs. $T_{1}$ | Company seeks operations supervi- <br> sor who is assertive. Hours: Monday <br> to Friday from 8am to 5pm in the city <br> center | Company seeks operations supervisor who has the <br> ability to express their opinions clearly and respect- <br> fully. Hours: Monday to Friday from 8am to 5pm in <br> the city center. |
| Base vs. $T_{2}$ | Company seeks operations supervi- <br> sor who is assertive. Hours: Monday <br> to Friday from 8am to 5pm in the city <br> center | Company seeks Operations Supervisor. Hours from <br> Monday to Friday from 8am to 5pm in the city center. |
| Base vs. $T_{3}$ | Company seeks operations supervi- <br> sor who is assertive to work. Hours: <br> Monday to Friday from 8am to 5pm <br> in the city center | Company seeks operations supervisor who is as- <br> sertive to work. Hours from Monday to Friday from <br> 8am to 5pm in the city center. We are committed <br> to providing equal opportunities in employment <br> regardless of gender, sexual orientation, disability <br> status, nationality, and age. |
| Base vs. $T_{4}$ | Company seeks operations supervi- <br> sor who is assertive. Hours: Monday <br> to Friday from 8am to 5pm in the city <br> center | Company seeks operations supervisor ${ }^{a}$ who is as- <br> sertive $b$ <br> in the city center. |

Notes:
${ }^{a}$ In Spanish this word has female and male termination, thus, we used the words: "Supervisor/a"
${ }^{b}$ In Spanish this word has female and male termination, thus, we used the words: "Asertivo/a". We carefully checked that each noun or skill used in the experiment had a feminine ending to differentiate it from the baseline, Base.
treatment status, the order of the screen on which it appeared, the position on the screen (left or right), and the choice or selection made by the job seeker.

We thus, estimate the following equation:

$$
\operatorname{Pr}\left(Y_{i j s}=1 \mid T_{i}\right)=\beta_{0}+\beta_{1} T_{1}+\beta_{2} T_{2}+\beta_{3} T_{3}+\beta_{4} T_{4}+\lambda_{i, s}+\epsilon_{i, s}
$$

And define $Y_{i j s}$ as a dummy indicating that option $j$ was selected by participant $i$ in screen $s . T_{1}$ is the skill description treatment, $T_{2}$ is the treatment without any skill specified, $T_{3}$ is the treatment with the diversity statement added, and $T_{4}$ is the treatment that indicates the gender-inclusive language in the job listing.

We estimate the parameters $\beta$ using a linear probability model and allow for the errors to be correlated within the pair 'screen-participant'. Drawing on previous literature, job ads containing gender-biased language - such as those featuring masculine skills, as in our base treatment ad Base- can strengthen the gender gap in terms of applications to male-dominated jobs. Conversely, gender-neutral information, even if considered lighttouch can increase the likelihood of women applying to such positions. Therefore, the expected coefficients for females are positive and significant across all treatment groups. However, the effect on male applicants is less straightforward. Depending on the firm's stance toward female employment, men may be deterred by gender-neutral language or encouraged by the prospect of working in an inclusive environment.

### 3.1 Data

In our study, we utilize both pre-experimental survey data and experimental data. Table 4 presents descriptive characteristics of the sample of 5,679 participants. ${ }^{3}$ Our

[^5]sample ranges from 17 percent of the participants from Argentina to 25 percent from Mexico. Nearly half of the sample is female, and 12 percent are migrants. The sample consists mainly of prime-age women, with 51 percent being between the ages of 35 and 54. One third of the sample is younger than 35, and less than one fifth is composed of people older than 55 years of age. The level of education is relatively high with almost 58 percent of the sample reporting some tertiary education, 39 percent with a high school diploma, and 3 percent are high school dropouts.

As for household characteristics, the average household has 4.12 individuals, and 27 percent of the sample have dependents at home (either a child younger than 5 or an adult that requires permanent care). The commuting time from the participant's place of residence to downtown is on average 64.35 minutes. ${ }^{4}$

Finally, the last panel summarizes the participants' labor situation. A large proportion of them, more than 70 percent, is employed. Among the employed, the average working hours per week is 38 .

We now turn to the pattern of responses that were given in the experiment. Table 5, on panel A, presents the distribution of participants' choices for economic sectors by gender. We find that 62 percent of female participants prefer to look for jobs in the information and communications technology (ICT) sector, while 28 and 10 percent opted for the manufacturing and construction sectors, respectively. Males showed a similar preference pattern, although the magnitude differed slightly. Panel B brakes down these results by occupation. The results suggest that, compared to men, women are less likely to choose jobs as contractors, electricians, and engineers; and more likely to look for a

50,949 in Colombia, 237,444 in Mexico, and 25,026 in Peru. Recruitment occurs continuously and through multiple sources, ensuring a diverse sample in terms of gender, age, and region. Additionally, the panel follows rigorous quality controls to ensure that participants are real and engaged. This guarantees that the surveys are not always answered by the same panelists.
${ }^{4}$ Recall that in the choice experiment we set all job positions in the same location in the city - i.e. downtown

Table 4. Descriptive Statistics of the Participants

| Variable | Mean | St. Dev. | N |
| :--- | :---: | :---: | :---: |
| Demographics |  |  |  |
|  |  |  |  |
| Country of Residence <br> Argentina (\%) | 0.17 | 0.37 | 965 |
| Chile (\%) | 0.18 | 0.38 | 1022 |
| Colombia (\%) | 0.21 | 0.41 | 1192 |
| Mexico (\%) | 0.25 | 0.43 | 1420 |
| Peru (\%) | 0.19 | 0.39 | 1080 |
| Female (\%) | 0.46 | 0.49 | 2612 |
| Migrants (\%) | 0.12 | 0.33 | 681 |
| Age |  |  |  |
| $\quad$ 18-34 years (\%) | 0.32 | 0.49 | 1817 |
| 35-54 years (\%) | 0.51 | 0.49 | 2896 |
| 55+ years (\%) | 0.17 | 0.31 | 966 |
| Education |  |  |  |
| $\quad$ High School Dropout (\%) | 0.03 | 0.18 | 171 |
| High School (\%) | 0.39 | 0.48 | 2214 |
| $\quad$ Tertiary Education (\%) | 0.58 | 0.49 | 3294 |
| Number of participants |  |  | 5679 |

## Household characteristics

| Household Size (ind.) | 4.12 | 3.83 | 5679 |
| :--- | :---: | :---: | :---: |
| Dependents (\%) | 0.27 | 0.45 | 5401 |
| Distance to city center (minutes) | 64.35 | 108.4 | 5679 |
| Labor supply |  |  |  |
| Employed (\%) | 0.71 |  |  |
| Working Hours (hours) | 38.29 | 17.47 | 4017 |

Notes: The total number of participants in the study is 5,679 . The N represents the number of individuals that meet the specified condition.
job as an operator, manager, or developer.
Table 5. Probability of Selecting Economic Sector and Occupation

| Variable | N | (1) <br> Female <br> Mean (\%)/SE | N | (2) <br> Male <br> Mean (\%)/SE | T-test Difference (1)-(2) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Panel A: Economic Sector |  |  |  |  |  |
| Construction | 2639 | $\begin{gathered} 0.10 \\ (0.01) \end{gathered}$ | 3040 | $\begin{gathered} 0.21 \\ (0.01) \end{gathered}$ | $-0.11^{* * *}$ |
| Manufacturing | 2639 | $\begin{gathered} 0.28 \\ (0.01) \end{gathered}$ | 3040 | $\begin{gathered} 0.23 \\ (0.01) \end{gathered}$ | 0.06*** |
| ICTs | 2639 | $\begin{gathered} 0.62 \\ (0.01) \end{gathered}$ | 3040 | $\begin{gathered} 0.57 \\ (0.01) \end{gathered}$ | $0.05^{* * *}$ |

Panel B: Occupation

| Contractor | 2639 | 0.04 | 3040 | 0.09 | $-0.05^{* * *}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (0.00) |  | (0.01) |  |
| Electrician | 2639 | 0.06 | 3040 | 0.12 | $-0.06^{* * *}$ |
|  |  | (0.00) |  | (0.01) |  |
| Operator | 2639 | 0.12 | 3040 | 0.08 | 0.04*** |
|  |  | (0.01) |  | (0.00) |  |
| Operations manager | 2639 | 0.16 | 3040 | 0.15 | 0.02* |
|  |  | (0.01) |  | (0.01) |  |
| Developer | 2639 | 0.45 | 3040 | 0.36 | 0.08*** |
|  |  | (0.01) |  | (0.01) |  |
| Engineer | 2639 | 0.17 | 3040 | 0.20 | $-0.03^{* * *}$ |
|  |  | (0.01) |  | (0.01) |  |

Notes: The value displayed for t -tests are the differences in the means across the groups. ${ }^{* * *},{ }^{* *}$, and * indicate significance at the 1,5 , and 10 percent critical level.

Table 6 presents the preference for job ads also broken down by gender. The job ad with the diversity statement added $\left(T_{3}\right)$ is the most commonly selected by women, with a selection probability of 78 percent, followed by the skill description $\left(T_{1}\right)$ at 68 percent, and the gender-inclusive language $\left(T_{4}\right)$ at 67 percent. In contrast, the ads without any skill specified (i.e, $T_{2}$ ) and with male-oriented skill (Base) were the least preferred by women. Men followed a similar preference order, although the magnitudes differed for
the Base treatment and for $T_{3}$ and $T_{4}$. As expected, they selected the male-oriented treatment more often than women, and they chose the diversity statement and the genderinclusive language ads less frequently than females.

Table 6. Probability of Selecting an Ad

| Variable | (1) <br> Female |  | (2) <br> Male |  | T-test Difference (1)-(2) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | Mean/SE | N | Mean/SE |  |
| Base: Male-oriented skill | 23751 | 0.37 | 27360 | 0.44 | $-0.07^{* * *}$ |
|  |  | (0.00) |  | (0.00) |  |
| $T_{1}$ : Skill Description | 5926 | 0.68 | 6857 | 0.67 | 0.00 |
|  |  | (0.01) |  | (0.01) |  |
| $T_{2}$ : No skill | 5921 | 0.38 | 6849 | 0.37 | 0.01 |
|  |  | (0.01) |  | (0.01) |  |
| $T_{3}$ : Diversity statement | 5947 | 0.78 | 6800 | 0.68 | $0.11^{* * *}$ |
|  |  | (0.01) |  | (0.01) |  |
| $T_{4}$ : Gender-inclusive text | 5957 | 0.67 | 6854 | 0.52 | $0.16^{* * *}$ |
|  |  | (0.01) |  | (0.01) |  |

Notes: The value displayed for t -tests are the differences in the means across the groups. ${ }^{* * *},{ }^{* *}$, and * indicate significance at the 1,5 , and 10 percent critical level.

## 4 Results

After providing a thorough description of our data and the empirical strategy, we now turn to describe the results from our estimated model. Table 7 displays the coefficients of our main estimation equation. The first column reports the results for the entire population, the second column presents the results for females, and the third column displays the results for males. In all specifications, we included fixed effects for individuals interacted with the screen and sector. The standard errors are clustered at the same level.

Table 7. Linear Probability Coefficients for Job Selection by Treatment

| Treatment | Total Sample | Female | Male |
| :--- | :---: | :---: | :---: |
| $T_{1}:$ Skill Description | $.40^{* * *}$ | $.41^{* * *}$ | $.40^{* * *}$ |
|  | $(.02)$ | $(.02)$ | $(.02)$ |
| $T_{2}:$ No skill | $-.32^{* * *}$ | $-.30^{* * *}$ | $-.33^{* * *}$ |
|  | $(.01)$ | $(.01)$ | $(.01)$ |
| $T_{3}:$ Diversity Statement | $.47^{* * *}$ | $.58^{* * *}$ | $.38^{* * *}$ |
|  | $(.02)$ | $(.01)$ | $(.02)$ |
| $T_{4}$ : Gender-inclusive text | $.26^{* * *}$ | $.43^{* * *}$ | $.10^{* * *}$ |
|  | $(.03)$ | $(.04)$ | $(.03)$ |
| Constant | $.40^{* * *}$ | $.36^{* * *}$ | $.43^{* * *}$ |
|  | $(.01)$ | $(.01)$ | $(.01)$ |
| N | 91998 | 43200 | 48798 |

Notes: This table presents the results from a linear probability model, where the dependent variable is a binary variable indicating which option was selected. Coefficients represent the change in probability with respect to the base treatment, represented by the constant. Standard errors in parenthesis are clustered at the participant-byscreen level. The number of observations corresponds to the number of participants multiplied by nine choice sets and two options per set.

$$
{ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.1
$$

The first two treatments aim to mitigate the impact of skill stereotypes by either including the skill description, $T_{1}$, or by omitting it, $T_{2}$, from the job advertisement. The results suggest a strong preference for vacancies that present the skill description, as reflected in the positive and highly significant coefficient of 40 percentage points, compared to the male-oriented skill treatment represented by the constant. This holds true for the overall sample as well as for both genders. Contrary to our initial expectation, our results show that women are less likely to select vacancies that omit the male-oriented skill, with the coefficient being negative and larger than 30 percentage points. This indicates that women are not sensitive to the inclusion of male-oriented skills and that the absence of such skills even dissuades them from applying to the job. Males also dislike
this type of job ad, possibly due to the lack of information in the listing.
The final two treatments evaluate preferences for an inclusive job environment by introducing a diversity statement or by implementing a gender-neutral rule in the ad. Our findings reveal that women strongly prefer vacancies with an inclusive statement, as reflected in a statistically significant increase in the probability of applying. Specifically, when the statement provides a general sign of inclusion (with the diversity statement), the probability of a woman applying to the job increases by 58 percentage points. The gender-specific treatment also attracts women, increasing the probability of their application by 43 percentage points. Importantly, these two treatments do not generate dissuasive effects on men. This might suggest that the diversity statement, while being more generic, signals an inclusive workplace and encourages men to apply.

These results provide evidence that the language used in job ads affects the perception that women and men have about a job and thus, changes the attractiveness of applying to it. Our results highlight that using different gender-related language in job ads affects the application decisions differently across job candidates, contingent on the type of information included. However, the use of information that signals an inclusive workplace is even more critical in promoting job attractiveness. Surprisingly, removing gendered wording has a limited impact on fostering a more gender-balanced workforce.

## Robustness

We will now evaluate whether the observed willingness of participants to select jobs with inclusive language can be attributed to other variables by examining potential confounding factors. This willingness was demonstrated through the use of language that reduces gender bias, describing the skills, or employing more inclusive terminology.

Initially, we had concerns that the participants' decisions were influenced by inatten-
tion rather than their actual preferences, leading to results that were merely noise. To demonstrate that this is not the case, we took advantage of the fact that we presented the same job postings twice to each participant on two different screens, resulting in one repeated choice set. Out of five participants, four made the same decision on both screens. We then examined a subset of 4,143 individuals who made identical selections on both screens to further investigate whether inattention could explain our results. As shown in Table 8, the results were consistent with our main findings in Table 7, with slightly larger treatment effects and a smaller constant being the only differences. These findings indicate that our participants responded attentively to the experiment and that our results are robust against concerns of inattention.

Another approximation to explore whether our results reflect noise is to evaluate if answers were given depending simply on the position of the ad on the screen. We reestimate our main equation, adding the right-position of the job posting on the screen of the participant as a control in the regression. With this exercise, we obtain strong evidence that our outcomes are independent of the random position of the screen. This reinforces the accuracy and attentiveness of our participants during the experiment and that our results reflect real preferences and not just noise.

We also aimed to investigate the potential impact of our interventions by exploring whether our treatments, which are intentionally soft, could be further diluted by the addition of more information in the job listing text. Specifically, we sought to determine the robustness of our treatments to additional information in job listings and whether the impact of our interventions on attenuation decisions would be attenuated or eliminated. We addressed this concern by including a placebo phrase for 10 percent of the sample, which was unrelated to skill, inclusive language, or to firms' attributes. The phrase, "Buscamos talento humano para que forme parte de nuestro equipo de trabajo" (We are looking for human talent to be part of our team), was included in the treatments with the least

Table 8. Linear Probability Coefficients for Job Selection (sub-sample of participants with consistent responses)

|  | Total Sample | Female | Male |
| :--- | :---: | :---: | :---: |
| $T_{1}:$ Skill Description | $.45^{* * *}$ | $.46^{* * *}$ | $.45^{* * *}$ |
|  | $(.02)$ | $(.03)$ | $(.02)$ |
| $T_{2}$ : No Skill | $-.35^{* * *}$ | $-.34^{* * *}$ | $-.37^{* * *}$ |
|  | $(.01)$ | $(.01)$ | $(.01)$ |
| $T_{3}$ : Diversity Statement | $.52^{* * *}$ | $.64^{* * *}$ | $.41^{* * *}$ |
|  | $(.02)$ | $(.01)$ | $(.03)$ |
| $T_{4}$ : Gender-inclusive text | $.29^{* * *}$ | $.49^{* * *}$ | $.12^{* * *}$ |
|  | $(.04)$ | $(.04)$ | $(.04)$ |
| Constant | $.39^{* * *}$ | $.34^{* * *}$ | $.42^{* * *}$ |
|  | $(.01)$ | $(.01)$ | $(.01)$ |
| N | 74,574 | 35,244 | 39,330 |

Notes: This table presents the results from a linear probability model, where the dependent variable is a binary variable indicating which option was selected. Coefficients represent the change in probability with respect to the base treatment, represented by the constant. Standard errors in parenthesis are clustered at the participant-by-screen level. The subsample consist of participants who made the same selection when faced with two identical screens, and excludes those who were deemed inattentive.
${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.1$
number of characters, as shown in Table 10.
Table 10. Placebo Rotation

| Scenario | Alternative 1 | Alternative 2 |
| :--- | :---: | :---: |
| 1 | Base + Sentence | $T_{1}$ Skill description |
| 2 | Base | $T_{2}$ No skill + Sentence |
| 3 | Base + Sentence | $T_{3}$ Diversity Statement |
| 4 | Base + Sentence | $T_{4}$ Gender-inclusive text |

Table 9. Lineal Probability Model Coefficients Controlling for Position on Screen

|  | Total Sample | Female | Male |
| :--- | :---: | :---: | :---: |
| $T_{1}$ : Skill Description | $.41^{* * *}$ | $.40^{* * *}$ | $.42^{* * *}$ |
|  | $(.02)$ | $(.02)$ | $(.02)$ |
| $T_{2}$ : No skill | $-.31^{* * *}$ | $-.30^{* * *}$ | $-.32^{* * *}$ |
|  | $(.01)$ | $(.01)$ | $(.01)$ |
| $T_{3}$ : Diversity Statement | $.48^{* * *}$ | $.57^{* * *}$ | $.39^{* * *}$ |
|  | $(.02)$ | $(.01)$ | $(.02)$ |
| $T_{4}$ : Gender-inclusive text | $.26^{* * *}$ | $.43^{* * *}$ | $.12^{* * *}$ |
|  | $(.03)$ | $(.04)$ | $(.03)$ |
| Right | $.01^{*}$ | -.00 | $.03^{* * *}$ |
|  | $(.01)$ | $(.01)$ | $(.01)$ |
| Constant | $.39^{* * *}$ | $.36^{* * *}$ | $.42^{* * *}$ |
|  | $(.01)$ | $(.01)$ | $(.01)$ |
| N | 91,998 | 43,200 | 48,798 |

Notes: This table presents the results from a linear probability model, where the dependent variable is a binary variable indicating which option was selected. Coefficients represent the change in probability with respect to the base treatment, represented by the constant. Standard errors in parenthesis are clustered at the participant-by-screen level. The number of observations corresponds to the total sample, results for the attentive sample are identical.

$$
{ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.1
$$

For each of these scenarios, we can estimate the placebo effect by comparing the choices of individuals who were exposed to the same treatment with and without the sentence added to the job listing text. We will estimate the following linear probability model for scenarios 1, 3 and 4:

$$
Y_{i j s}=\alpha_{0}+\alpha_{1} \text { Base }+\alpha_{2} \text { Base }_{p}+\lambda_{i, s}+\epsilon_{i, s}
$$

Where Y is a binary variable indicating that individual $i$ was exposed to treatment $j=1,3,4$ and its respective counterfactual Base (base without placebo) or Base $e_{p}$ (base
with placebo). Then, the probability of selecting a job ad given that Base $=1$ is $\operatorname{Pr}\left(Y_{i j s}=1 \mid\right.$ Base $=1$, Base $\left._{p}=0\right)=E\left[Y_{i j s} \mid\right.$ Base $=1$, Base $\left._{p}=0\right]=\alpha_{0}+\alpha_{1}$. While the probability of choosing a job ad given that Base $_{p}=1$ is $\operatorname{Pr}\left(Y_{i j s}=1 \mid\right.$ Base $=0$, Base $_{p}=$ $1)=E\left[Y_{i j s} \mid\right.$ Base $=0$, Base $\left._{p}=1\right]=\alpha_{0}+\alpha_{2}$. Finally, the probability of selecting the job listing with the treatment $j=1,3,5$ is given by $\operatorname{Pr}\left(Y_{i j s}=1 \mid\right.$ Base $=0$, Base $\left._{p}=0\right)=$ $E\left[Y_{i j} \mid\right.$ Base $=0$, Base $\left._{p}=0\right]=\alpha_{0}$

Given these probabilities, we can estimate the placebo's effect by exploring the marginal effect that Base has on the probability of choosing (i.e., the skill effect) and comparing to the marginal effect that $B a s e_{p}$ has (i.e., the skill and sentence effect). Thus, the skill effect is given by:

$$
\operatorname{Pr}\left(Y_{i j s}=1 \mid \text { Base }=1, \text { Base }_{p}=0\right)-\operatorname{Pr}\left(Y_{i j s}=1 \mid \text { Base }=0, \text { Base }_{p}=0\right)=\alpha_{1}
$$

While the effect of both skill and sentence on the probability of selecting a job ad is:

$$
\operatorname{Pr}\left(Y_{i j s}=1 \mid \text { Base }=0, \text { Base }_{p}=1\right)-\operatorname{Pr}\left(Y_{i j s}=1 \mid \text { Base }=0, \text { Base }_{p}=0\right)=\alpha_{2}
$$

Therefore, the difference between the composite effect and the effect of the skill allow us to recover the placebo's effect:

$$
\operatorname{Pr}\left(Y_{i j s}=1 \mid \text { Base }=0, \text { Base }_{p}=1\right)-\operatorname{Pr}\left(Y_{i j s}=1 \mid \text { Base }^{2}=1, \text { Base }_{p}=0\right)=\hat{\alpha_{2}}-\hat{\alpha_{1}}
$$

Although participants prefer vacancies with more information, the extent to which participants' job preferences were influenced by the placebo effect depended on the reference treatment used. Panel A of Table 11, for example, contains the results for individuals in scenario 1, where we compare the male-oriented treatment without placebo
(Base) and with the placebo ( Base $_{p}$ ) to job ads including the description of the skill $\left(T_{1}\right)$. The probability of selecting the latter was 70 percent, while the probability of selecting the male-oriented job ad without the placebo is 43 percentage points lower and only 15 percentage points lower with the placebo. This implies that the placebo effect was 28 percentage points and was similar for men and women. Panel B presents the same exercise for the diversity statement treatment $\left(T_{3}\right)$. The placebo effect, in this case, is considerably lower: Only 11 percentage points for the total sample, 8 percentage points for females, and 11 percentage points for males. This implies that the inclusive language used in the treatment was more influential in shaping participant preferences than the placebo. Finally, Panel $C$ shows the results for the gender-inclusive treatment $\left(T_{4}\right)$, and, the placebo effect increases dramatically to 42 percentage points for the total sample, 50 percentage points for females, and 35 for males.

Table 11. Linear Probability Model Coefficients, Placebo Effect, Treatments 1, 3 and 4

|  | Total Sample | Female | Male |
| :---: | :---: | :---: | :---: |
| Panel A: Scenario 1 |  |  |  |
| Base: Base ( $\hat{\alpha}_{1}$ ) | -. $43^{* * *}$ | -. $43^{* * *}$ | -. $42^{* * *}$ |
|  | (.01) | (.01) | (.01) |
| Base $_{p}:$ Base + Sentence ( $\hat{\alpha}_{2}$ ) | -. $15^{* * *}$ | -.15*** | -.15*** |
|  | (.01) | (.02) | (.02) |
| $T_{1}$ : Skill Description ( $\hat{\alpha}_{0}$ ) | . 70 *** | . 70 *** | .70*** |
|  | (.00) | (.01) | (.01) |
| $\operatorname{Pr}\left[Y_{i j s}=1 \mid\right.$ Base $=1$, Base $\left._{p}=0\right)$ | . 27 | . 27 | . 28 |
| $\operatorname{Pr}\left[\mathrm{Y}_{i j s}=1 \mid\right.$ Base $=0$, Base $\left._{p}=1\right)$ | . 55 | . 55 | . 55 |
| Placebo Effect ( $\alpha_{2}-\alpha_{1}$ ) | . $28^{* * *}$ | .29*** | .27*** |
| N | 20602 | 9588 | 11014 |
| Panel B: Scenario 3 |  |  |  |
| Base: Base ( $\hat{\alpha}_{1}$ ) | $-.51^{* * *}$ | -.63*** | -. 40 *** |
|  | (.01) | (.01) | (.01) |
| Base $_{p}$ : Base + Sentence ( $\hat{\chi}_{2}$ ) | -. $40^{* * *}$ | -.55*** | -. 28 *** |
|  | (.01) | (.02) | (.02) |
| $T_{3}$ : Diversity Statement ( $\hat{\alpha}_{0}$ ) | . 75 *** | . 81 *** | . 69 *** |
|  | (.00) | (.01) | (.01) |
| $\operatorname{Pr}\left(\mathrm{Y}_{i j s}=1 \mid\right.$ Base $=1$, Base $\left._{p}=0\right)$ | . 24 | . 18 | . 29 |
| $\operatorname{Pr}\left(\mathrm{Y}_{i j s}=1 \mid\right.$ Base $=0$, Base $\left._{p}=1\right)$ | . 35 | . 26 | . 41 |
| Placebo Effect ( $\alpha_{2}-\alpha_{1}$ ) | . $11{ }^{* * *}$ | .078*** | .11*** |
| N | 20812 | 9758 | 11054 |
| Panel C: Scenario 4 |  |  |  |
| Base: Base ( $\hat{\alpha}_{1}$ ) | -. $25^{* * *}$ | -. $44^{* * *}$ | $-.08^{* * *}$ |
|  | (.01) | (.01) | (.01) |
| Base $_{p}$ : Base + Sentence ( $\hat{\alpha}_{2}$ ) | .17*** | .06** | . $26{ }^{* * *}$ |
|  | (.02) | (.02) | (.02) |
| $T_{4}$ : Gender-inclusive text ( $\hat{\alpha}_{0}$ ) | . 61 *** | . 70 *** | . 52 *** |
|  | (.00) | (.01) | (.01) |
| $\operatorname{Pr}\left(\mathrm{Y}_{i j s}=1 \mid\right.$ Base $=1$, Base $\left._{p}=0\right)$ | . 36 | . 26 | . 44 |
| $\operatorname{Pr}\left(\mathrm{Y}_{i j s}=1 \mid\right.$ Base $=0$, Base $\left._{p}=1\right)$ | . 78 | . 76 | . 78 |
| Placebo Effect ( $\alpha_{2}-\alpha_{1}$ ) | .42*** | . 50 *** | . $35^{* * *}$ |
| N | 20660 | 9648 | 11012 |

Notes: This table presents the results from a linear probability model, where the dependent variable is a binary variable indicating which option was selected. The number of observations corresponds on each panel (A, B and C), corresponds to participants who were exposed to the same treatment ( $T_{1}$, $T_{3}, T_{4}$ ) and had to compare to the base without (Base) the placebo and with it ( Base $_{p}$ )
${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.1$

We also estimated a placebo effect for the No skill description treatment $\left(T_{2}\right)$ in scenario 2. In this case, we estimate the following linear probability model:

$$
Y_{i j s}=\beta_{0}+\beta_{1} T_{2}+\beta_{2} T_{2 p}+\lambda_{i, s}+\epsilon_{i, s}
$$

Where Y is a binary variable indicating that individual $i$ was exposed to treatment $j=2$, without placebo $T_{2}$ or with placebo $T_{2 p}$. In this case, we define the placebo's effect by:

$$
\operatorname{Pr}\left[Y_{i j s}=1 \mid T_{2}=0, T_{2 p}=1\right]-\operatorname{Pr}\left[Y_{i j s}=0 \mid T_{2}=1, T_{2 p}=0\right]=\beta_{2}-\beta_{1}
$$

Table 12 presents the results. Participants select, on average, the ad including the male-oriented skill 64 percent of the time, whereas not including any skill dissuades them from applying by about 30 percentage points. However, this negative effect is offset when we include additional information in the job ad. As shown in the Table, the probability of selecting the No skill description plus the sentence is 8 percentage points. With these numbers, we can calculate a placebo effect of 40 percent, which is also large in this scenario.

Overall, our interpretation of the results suggests that the coefficients we estimate reflect participants' real preferences. The findings also indicate that the impact of additional information is particularly significant when the inclusive language is subtle (i.e., in treatments $T_{1}, T_{2}$, and $T_{4}$ ). However, when the language signals a strong preference for inclusion (i.e., $T_{3}$ ), the role of other information is less pronounced. Also, we demonstrate the critical role of the use of language in shaping perceptions of job ads, and suggest that the signals and information conveyed by firms in their job ads can be decisive in attracting a more diverse applicant pool, particularly women.

Table 12. Linear Probability Model Coefficients, Placebo Effect, Treatment 2

|  | Total Sample | Female | Male |
| :---: | :---: | :---: | :---: |
| Scenario 2 |  |  |  |
| $T_{2}: \operatorname{No}$ skill ( $\hat{\beta}_{1}$ ) | -.32*** | $-.30^{* * *}$ | $-.33^{* * *}$ |
|  | (.01) | (.01) | (.01) |
| $T_{2 p}:$ No skill + Sentence ( $\hat{\beta}_{2}$ ) | .08*** | .13*** | .03* |
|  | (.02) | (.02) | (.02) |
| Base: Base male-oriented skill ( $\hat{\beta}_{0}$ ) | . $64^{* * *}$ | . 63 *** | . $64 * * *$ |
|  | (.00) | (.01) | (.01) |
| $\operatorname{Pr}\left(Y_{i j s}=1 \mid T_{2}=1, T_{2 p}=0\right)$ | . 32 | . 33 | . 31 |
| $\operatorname{Pr}\left(Y_{i j s}=1 \mid T_{2}=0, T_{2 p}=1\right.$ | . 72 | . 76 | . 67 |
| Placebo Effect ( $\beta_{2}-\beta_{1}$ ) | . 40 *** | . 43 *** | . 36 *** |
| N | 20636 | 9598 | 11038 |
| ${ }^{* * *} \mathrm{p}<0.01$, ** $\mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.1$ |  |  |  |
| Notes: This table presents the results from a linear probability model, where the dependent variable is a binary variable indicating which option was selected. The number of observations corresponds on each panel (A, B and C), corresponds to participants who where exposed to to the same treatment $\left(T_{2}\right)$ and had to compare to the base without (Base) the placebo and with it (Base $e_{p}$ ) |  |  |  |
| ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.1$ |  |  |  |

## Heterogeneous Effects

After establishing a clear preference for job vacancies that describe the required skill for the occupation and the use of inclusive text or gender-neutral descriptions, we explore whether there are differences in how participants react to treatments based on their personal characteristics. To do this, we leverage the rich survey data that we collected and break down the analysis by economic and contextual factors, as well as individuallevel characteristics.

We test for differences across economic sectors and former experience in sectors that were part of the study (i.e., construction, manufacturing, and ICTs). We estimate our
main equation for these subgroups and present the results in Figure 1.
Heterogeneous effects by economic sector, shown in panel (a), indicate that preferences of job seekers who would choose a job in manufacturing or ICTs remain unchanged in terms of both direction and magnitude. Results for construction are less precise and in some cases of lower magnitude.We also find that the diversity statement in job listings is less attractive to women in construction, while men in the ICT occupations prefer it more. In addition, the gender-inclusive text is also statistically more attractive for women in ICT occupations than in manufacturing, but not different for construction.

Panel (b) breaks down the sample by individuals with former experience in the same sectors of our study and other economic sectors. Interestingly, we do not find differential preferences for the use of language if individuals had experience in male-dominated sectors or not. This evidence indicates that participants understood that the job listings were fictitious and their answers did not depend on the occupation per see, but on the description of the job listing.

To further analyze the generalizability of our findings across different countries, we also disaggregate the sample by the participants' countries of residence (refer to Figure 2). Notably, we find no statistical differences across countries, except for participants from Argentina and Chile, who exhibit different responses to treatments 2 and 3. Participants from other countries react similarly to the variations in the use of language.

Figure 1. Heterogeneous Effects by Economic Sector and Former Experience

(a) By economic sector

(b) By former experience

Figure 2. Heterogeneous Effects by Country


We next turn to investigate whether job seekers have varying preferences for language based on their individual characteristics. Specifically, we investigate the influence of factors such as age, level of education, labor force status, and migration status as proxies for employment needs. While the desire for inclusion may be shared among many job seekers, we seek to uncover if job seekers have differential preferences for the use of language according to their individual characteristics. Figure 3 plots the coefficients for the estimation of preferences for job ads exploiting the mentioned participant's attributes.

Results displayed in Figures 3 and 4 are consistent by age except for those older than 55 who seem to be less sensitive to the variations in the use of language. Additionally, we
find no significant differences in preferences across educational levels. The only fact to highlight is that the point estimates for individuals with low levels of education are less precise than for those with higher levels of education. Moreover, our analysis reveals no significant differences in preferences between employed and unemployed individuals, nor between migrants and locals. These exercises reflect how consistent the estimates of our model are, suggesting that the preferences for different types of use of language in job listings are similar for candidates regardless of their individual characteristics.

In the final step of our analysis, we exploit how participants' perception of gender bias in the skills used to construct the job listings may influence their preferences for language use. As part of our experimental design, we intentionally included maleoriented skills that are more frequently observed in vacancies on job search engines in the five Latin American countries of the study. However, it is possible that participants may not necessarily relate these skills to a particular gender. To confront this idea, we asked participants to indicate whether they perceived the skill as being related to a single sex (female, male) or both. We then used their responses to examine the relationship between participants' perceptions of gender bias and their preferences for language use in job ads.

Figure 5 presents the results of re-estimating our main empirical equation using only the sample of individuals who associated the skill with a male and compare its point estimates to those who associated the skill with both men and women. We find that, for females the results remain unchanged, though they were less precise, while males' coefficients became smaller for those individuals who associated the skill with a male.

Figure 3. Heterogeneous Effects by Individual Attributes

(a) By age

(b) By education

Figure 4. Heterogeneous Effects by Individual Attributes (cont)

(a) By labor force status

(b) By migration status

Figure 5. Heterogeneous Effects by Male-Related Skill

(a) By instrinsic association

## 5 Conclusion

We use a Discrete Choice Experiment (DCE) to measure job seekers' preferences for different types of language used in job listings that may signal gender bias. By varying the gender-biased language related to the skills required in the occupation of the job listing, we are able to measure the probability of men and women applying for the position, which is a proxy for access to employment. We do this by conducting a survey in five Latin American countries, a survey that contains the DCE along with other information about basic demographic characteristics, labor status, and their perceptions about gender bias in the use of language. Each participant's choice reflects their true preferences in the job search process regarding some of the implicit attributes or characteristics related to how inclusive the firm is in terms of gender in the job advertisements.

Our study employs an experimental design that allows us to systematically examine the impact of gendered language on job seekers' preferences. This is accomplished by exposing male and female candidates to job listings with information regarding skill stereotypes through a description of the skill or by omitting it, and information regarding an inclusive work environment, by using a diversity statement, or by employing a gender-neutral rule in the job ad.

We find that both women and men value the use of inclusive language when it comes to applying to jobs, but that women are more sensitive to this inclusive information. In particular, adding gender-inclusive text in the job listing such as presenting occupations and skills with both masculine and feminine endings increases the probability of women applying to those jobs by 43 percentage points. Among men, the preferences are similar, although it is of a lesser degree (10 percentage points). This result is particularly relevant for languages like Spanish, which uses grammatical gender in the spelling of words. Therefore, using more gender-neutral words or inclusive information is key to reducing
the gender gap in labor market applications, since it will attract more women to certain occupations.

Furthermore, explicitly stating in a job advertisement that the company offers equal opportunities for women and diverse workers can lead to a 58 percentage point increase in the likelihood of women applying and a 38 percentage point increase in the likelihood of men applying. Surprisingly, the use of inclusive language in job ads does not discourage men from applying; in fact, men also respond positively to such signals and are more likely to apply to job ads that use inclusive language than to those using masculine language. Additionally, the study reveals a preference for job postings that describe the required skills in neutral language. When job ads use masculine words to describe skills, both men and women prefer ads that provide a more detailed definition of the skill in demand, with this approach increasing the likelihood of selecting the job by 40 percentage points for both genders.

Our analysis reveals that while there is some cross-country variation, the sign of the coefficients and their significance remains unchanged, just as when we analyze other individual characteristics. This implies that preferences for language in job ads are similar for individuals with diverse characteristics. However, we find a notable exception among older men who express a dislike for job ads that do not mention specific skills, which contrasts with the preferences of younger men.

Our results demonstrate that the impact of inclusive language on job seekers' preferences is contingent on the degree of subtlety used. Specifically, when the inclusive language is subtle, such as adding masculine and feminine spelling or including a brief description of the required skill, other information about the job becomes more important in driving applicants' preferences. However, this effect decreases when the job ad features more explicit signals of inclusivity, such as a diversity statement, which indicates a strong commitment to inclusion by the employer.

In sum, our findings indicate that language matters and the type of information and signals that companies provide in their ads can be decisive in attracting more women to apply. Adopting more gender-neutral and inclusive language is a simple and inexpensive policy that firms can implement to reduce gender bias in recruitment. Importantly, this policy does not harm men and can lead to a more diverse and qualified pool of candidates.

These findings are important because the job search process may result in different implicit and explicit costs for men and women. Differences in these costs may cause gender differences in employment access and result in occupational segregation. As noted by Hanson and Pratt (1991), men and women find jobs in male and female-dominated occupations using diverse pieces of information. Therefore, understanding how variations in the use of language affect job candidates' preferences is key to reducing gender bias in employment access.

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## 6 Appendix

### 6.1 Questionnaire

P1. What activity did you spend most of your time on last week? 1. Working 2. Looking for a job for the first time 3. Looking for a job, but have worked before 4 . Being a student 5. Housework 6. Permanently unable to work 89. Other activity. Which?

P2. Before discounts, approximately how much income did you receive last month for your work? Please place yourself in the range that best fits you.

P4. How many hours a week do you normally work? Number of hours per week:
P5. In which economic sector do you work? 1. Agriculture, livestock, hunting, forestry and fishing 2. Exploitation of mines and quarries mining 3. Manufacturing industry 4. Electricity, gas, steam and air conditioning supply 5. Water distribution, sewage and wastewater treatment 6. Construction 7. Trade 8. Transportation and storage 9. Accommodation / hospitality and food services/restaurants 10. Information and communications 11. Financial and insurance activities 12. Real estate activities 13. Professional, scientific and technical activities 14. Education/ teaching 15. Health care and social assistance 16. Artistic activities 89 . Other service activities. Which?

P6. Which of the following best represents your current job title? 1. Director 2. Middle management 3. Supervisor, professionals and technicians 4. Operational Support 5. Independent worker 89. Other job. Which?

P7. How many weeks ago did you stop working?
P8. Before discounts, how much monthly income did you receive in your last job/jobs? Please place yourself in the range that best fits you.

P9. How many hours a week did you normally work at your last job/jobs? Number
of hours per week:
P10. In which economic sector did you work? 1. Agriculture, livestock, hunting, forestry and fishing 2. Exploitation of mines and quarries/mining 3. Manufacturing industry 4. Electricity, gas, steam and air conditioning supply 5. Water distribution, sewage and wastewater treatment 6. Construction 7. Trade 8. Transportation and storage 9. Accommodation/hospitality and food services/restaurants 10. Information and communications 11. Financial and insurance activities 12. Real estate activities 13. Professional, scientific and technical activities 14. Education/ teaching 15. Health care and social assistance 16. Artistic activities 89 . Other service activities. Which?

P11. Which of the following options best represents the position you held previously in your job? 1. Director 2. Middle management 3. Supervisor, professionals and technicians 4. Operational / Support 5. Independent worker 89. Other job. Which?

P12. In which economic sector are you looking for a job? (PROG: SA) 1. Agriculture, livestock, hunting, forestry and fishing 2. Exploitation of mines and quarries/mining 3. Manufacturing industry 4. Electricity, gas, steam and air conditioning supply 5. Water distribution, sewage and wastewater treatment 6. Construction 7. Trade 8. Transportation and storage 9. Accommodation/hospitality and food services/restaurants 10. Information and communications 11. Financial and insurance activities 12. Real estate activities 13. Professional, scientific and technical activities 14. Education/ teaching 15. Health care and social assistance 16. Artistic activities 89. Other service activities. Which?

P13. Which of the following options best represents the position you would like to hold in the job/jobs you are looking for? (PROG: SA) 1. Director 2. Middle management 3. Supervisor, professionals and technicians 4. Operational / Support 5. Independent worker 89. Other job.

P15. How many people usually reside in your household, including yourself? Number of people:

P16. How many people in your household are financially dependent on you?
P17. Are there people in your household that need ongoing care? 1.Yes. How many? 2.No

P18. How many members of your household are currently doing work for which they receive income? Please do not include yourself in the answer.

P19. How long would it take you to get from your place of residence to the city center?


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[^3]:    ${ }^{1}$ The text in Spanish used in the ads is: "Estamos comprometidos a proporcionar igualdad de oportunidades en el empleo independiente del género, orientación sexual, situación de discapacidad, nacionalidad y edad".

[^4]:    ${ }^{2}$ See the questionnaire in the Appendix

[^5]:    ${ }^{3}$ Our study's sample was drawn from the "Ipsos Interactive Services" (ISS) Panel, which has over a million panelists located throughout Latin America. Of these, 56,559 are in Argentina, 41,997 in Chile,

