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Hiring Discrimination against Transgender Individuals in the US Labor Market

Ivy Stanton

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Department of Economics

University of Vermont

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Advisor: Emily Beam

Thesis Committee: Holly Painter, Richard Sicotte, and Sara Solnick

Abstract

I conducted a correspondence study to measure the hiring discrimination against transgender individuals in the United States labor market. I randomly assigned transgender identity to resumes to determine if there is discrimination against transgender individuals in the hiring process of entry-level jobs. During the month of February 2023, I submitted 1100 resumes to job postings on Craigslist in Arizona, California, New York, and Texas. The results do not show a detectable effect of being transgender or a woman on the callback rate; however, I find that transgender women are 6 percentage points less likely to receive a callback than cisgender men, which is statistically significant at the 5% level in the employer fixed effects model. This suggests that there is hiring discrimination against transgender women in the US labor market.

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1 - Introduction

Transgender individuals throughout the United States face discrimination in employment due to their gender identity. This biased treatment leads to greater inequality between transgender people and the rest of the population, causing worse outcomes for transgender individuals. Although it is established that there is discrimination against transgender people in many fields such as healthcare (Button et al. 2020), there is a lack of precise employment evidence in labor markets. In comparison to the rich literature and experiments on racial and gender discrimination (Darity and Mason 1998, Bertrand and Mullainathan 2004, Lang and Spitzer 2020), there has not been as much or as detailed economic research into the discrimination that transgender people face (Bardales 2013, Imse and Rainey 2015).

The lack of evidence is attributable to how difficult it is to obtain comprehensive data. It would be difficult to obtain accurate information by directly surveying employers on whether they discriminate against transgender applicants for two reasons. First, they may not realize that they discriminate due to implicit bias. Second, if the employer does discriminate, they could feel pressure to lie about their behavior. In some states, there are anti-discrimination laws that could dissuade employers from disclosing discriminatory practices in hiring. Social desirability bias would make it so that employers would not want to appear discriminatory to others.

This paper addresses the question of whether transgender individuals in the United States face hiring discrimination when applying to entry-level positions. I conducted a correspondence study to measure the impact of gender identity on the likelihood of a job applicant receiving a callback. I signaled transgender identity by including a statement near the top of each resume that was randomly assigned transgender identity: for example, “My preferred name is John, but my legal name is Mary.” One name was unambiguously masculine, while the other name was

unambiguously feminine to establish a contrast in gender between the applicant's legal name and preferred name that signals transgender identity. In total, I submitted 1,100 resumes to job applications from 275 employers in Arizona, California, New York, and Texas over the course of four weeks from February 6 to March 2.

I find that there are differences in the callback rates based on gender identity: the callback rates are 19% for cisgender men, 16% for cisgender women, 17% for transgender men, and 13% for transgender women. I also find that there is hiring discrimination against transgender women but not against transgender men: transgender women are 6 percentage points less likely to receive a callback than cisgender men in the employer fixed effects model, which is significant at the 5% level, while there is no detectable discrimination against transgender men.

As the first correspondence study to address transgender identity across the United States, this project lays the groundwork for future economic research on transgender individuals. Although there are qualitative surveys to document the experiences of transgender individuals in the labor market, quantitative research provides further insight into the employer side of the market and the potential causes of discrimination. This research is necessary to establish benchmark levels of discrimination, compare discrimination of transgender individuals to that of other groups such as cisgender individuals, and to identify heterogeneity in the experiences of transgender individuals across different gender identities and states.

The remainder of the paper is organized as follows. In Section 2, I review the literature on correspondence studies as it pertains to measuring discrimination based on transgender identity and gender. Section 3 describes the methodology of designing the correspondence study, developing the resumes, signaling transgender identity, finding positions on Craigslist, and

submitting the resumes to job applications. I present and interpret the results of the experiment in Section 4 and discuss the implications of the results in Section 5.

2 - Literature Review

Historically, economists have used two types of experiments, audit studies and correspondence studies, to measure the discrimination that marginalized groups face. The audit study, hiring actors to apply and interview for jobs, became a popular method for determining whether there was discrimination (Guryan and Charles 2013); however, many economists criticized it for the variables it cannot control, such as employers judging the appearance of the actors (Heckman and Siegelman 1993, Heckman 1998). In contrast, the correspondence study or resume audit corrects the weaknesses of its predecessor by submitting fictitious resumes to job postings. This method allows researchers to control for variables such as gender and race without the influence of other variables. The correspondence study is a well-tested method to acquire data on discrimination and is respected in the field (Bertrand and Mullainathan 2004).

While the major correspondence studies have measured whether race and gender affect employment in the labor market, a few studies have tested for sexual orientation (Patacchini et al. 2015, Ahmed et al. 2013, Bailey et al. 2013) and gender identity. One audit study in 2010 employed transgender actors to submit resumes to jobs in person and record the responses (Make the Road New York 2010), but it had the weaknesses of the audit study along with having a small sample of 96 submissions. Bardales (2013) submitted resumes to two cities in Texas to measure if anti-discrimination laws affected hiring discrimination of transgender women; however, the signals of transgender identity in the study included participation in transgender women groups, which may signal political identity and activism instead of transgender identity (Bertrand and Duflo 2017). The problem is that employers may discriminate based on political

identity or participation in activism rather than solely based on transgender identity. In addition, the fictitious resumes should be as close to real resumes as possible, so it may appear odd to include participation in a political or social group that is outside of an applicant's employment history on their resume even if political participation is also included on cisgender resumes. Imse and Rainey (2015) submitted resumes to measure discrimination for transgender people in Washington DC, but included experience in LGBTQ activist groups, which, again, may be conflated with political identity and activism (Bertrand and Duflo 2017). Bardales (2013) and Imse and Rainey (2015) each had a small sample size, respectively 218 and 200 submissions, and are less generalizable because of the geographically limited scope of the studies. The first correspondence study to measure hiring discrimination against transgender people on a country-level was conducted in Sweden where there was no detectable discrimination (Granberg et al. 2020). One correspondence study found that applicants using they/them pronouns, which signals non-binary identity, received less callbacks than applicants who did not use pronouns on their resumes when applying to remote positions in the United States (McGonagill 2023). Although they/them pronouns signal non-binary identity, they likely also signal political identity. The study does not disclose the breakdown of states to which the applications were submitted and had a small sample of 180 submissions. My thesis is the first correspondence study to measure hiring discrimination against binary transgender individuals across multiple states in the country.

The current literature on discrimination against transgender individuals primarily consists of anecdotal evidence and qualitative evidence. Civil rights organizations such as the Human Rights Campaign and National Center for Transgender Equality (NCTE) conduct surveys of the experiences of transgender individuals with employment. While qualitative studies are important for understanding how members of marginalized communities experience discrimination, they

are only part of the whole picture. Quantitative evidence provides an analysis of the broader population and uses a measurement that facilitates comparisons with other subgroups, such as comparing cisgender women and transgender women. My correspondence study provides a quantitative analysis of discrimination against transgender individuals and reflects revealed preference, so it is less susceptible to selection bias and social desirability bias.

The concept of intersectionality may be important for understanding why there is not a detectable effect of transgender identity or being a woman on the callback rate while transgender women are less likely to receive a callback than cisgender men (Crenshaw 1991). Crenshaw argues that individuals who hold two or more marginalized identities experience discrimination that is unique to the intersection of their identities. For example, a black woman may face a higher level of discrimination than a white woman or a black man.

Although both transgender men and transgender women experience hardships related to their gender identity, the current discourse in the United States against transgender people from the Republican Party centers on transgender women (Peters 2021). The opponents of transgender rights view transgender women as men who wear women's clothing, infiltrate women's spaces, and are predatory toward women and children (Bassi and Lafleur 2022). The perception of transgender women as predators is one of the fundamental reasons that many Republicans oppose transgender rights (Maggie 2022). This prejudiced view uniquely applies to transgender women, not transgender men, which may be another reason why there was hiring discrimination against transgender women but not transgender men in the sample.

3 - Methodology

I measured whether gender identity impacted callback rates by generating 32 fictitious resumes and submitting them to job postings. The control group is resumes of cisgender applicants, while the experimental group is resumes of transgender applicants. I submitted 1100 resumes to 275 job postings with unique employers. For each job posting, I submitted resumes for one cisgender man, one cisgender woman, one transgender man, and one transgender woman to have the same number of submissions for each gender identity. I chose to submit resumes to job postings in the metropolitan areas of four of the five United States cities with the largest populations: Phoenix, AZ, Los Angeles, CA, New York, NY, and Houston, TX. Although Chicago, IL, has a larger population than Phoenix and Houston, I wanted to submit resumes to states with a higher percentage of registered Republicans to measure if that had an impact on the likelihood of transgender and women applicants to receive a callback.

The correspondence methodology means that all respondent characteristics will be held constant or randomized between resumes. As a result, I can attribute any differences in the likelihood of receiving a callback to the employer's perception of the trait, gender identity, made salient to the employer. This enables causal identification of the impact of gender identity on callback rates. Alternative approaches to measuring discrimination are not well-suited to answer these research questions. Comparing employment outcomes of transgender and cisgender individuals, for example, cannot control for other unobservable characteristics that might influence employer decisions and be correlated with gender identity. Additionally, few data sets ask respondent gender identity. Because of the involvement of employers in reviewing applications, I applied for and received IRB approval.

3.1 - Developing Resumes

The first and last names of the applicants were selected from the most popular baby names and surnames of 2000, taken from the Social Security Administration (SSA 2023). I randomized the combination of first and last names and kept the combinations constant across the four states so that gender identity, not names, would drive the result of receiving a callback.

Each resume included a four-year high school and four-year university that were of similar quality. Under the college on each resume, there was a gender-neutral activity listed to make the applicant appear more realistic. The applicants all graduated from high school in 2018 and graduated from university in 2022 so that they were recent graduates. Each resume had one job in each of the food and retail industries. One job was when the applicant was in high school, and the other job was when the applicant was in university and up until the application. The job during college was in the same location as the college, but not necessarily the metropolitan area where the resumes were submitted; however, I assumed that because the applicants each attended high school in the respective areas and were applying to positions in those areas that employers would assume that the applicants were able to relocate for work. The first and second job experiences were each approximately two years long. I found job descriptions from sample resumes online and modified them for the work experience section of the resumes.

There were four submissions for each job, four different metropolitan areas where I submitted applications, and two versions of each resume (one cisgender and one transgender), so I created thirty-two different resumes. Out of the two men and two women, I would randomly select which one from each respective gender was transgender, which is why there were thirty-two resumes instead of sixteen with one woman and one man being transgender for all

submissions. I only created eight email addresses (one for each cisgender and transgender version of the applicants) for ease of data collection.

3.2 - Signaling Transgender Identity

To indicate transgender identity on the resumes, I randomly assigned another name of the opposite gender to each transgender applicant. Then, I included a sentence near the top of the resume to signal transgender identity: "My preferred name is John, but my legal name is Mary." Many transgender people choose a new name that matches their gender identity when they transition. Their previous name that corresponds with their former gender is known as a deadname. The contrast between the gender of the applicant's preferred name and legal name signals transgender identity to an employer.

Through reviewing online transgender discussion boards, I found that many transgender people in the process of transitioning will disclose transgender identity early in the job application process. This may seem counterintuitive when there is discrimination against transgender individuals in the labor market; however, if an employer will eventually discover that an applicant is transgender through legal documentation that shows that an applicant's legal name is a different gender than their preferred name, then it is less costly for a transgender applicant to disclose their identity early and not face discrimination after starting a job.

3.3 - Identifying Job Postings

Most job websites require an account to apply for a position, which is costly for a correspondence study with various randomized resumes. It is difficult to even conduct a correspondence study now that almost all popular job websites, such as LinkedIn and Indeed,

and internal company websites require the creation of an account for applications. LinkedIn has a feature called Easy Apply where applicants can submit applications without creating accounts on company websites if they already have a LinkedIn account. I thought this would be an effective way to avoid making an account for each company; however, after I created 32 LinkedIn accounts, LinkedIn required each one to submit a driver's license or passport for verification, so I lost the 32 accounts. McGonagill (2023) used LinkedIn Easy Apply, but only made two accounts, which were not limited by location because they applied to remote positions. To avoid creating an account for each resume, I submitted applications for jobs on Craigslist. The entry-level positions on Craigslist and LinkedIn did not appear to have major differences.

Craigslist has a website for each major city in the United States, so I would go onto the city website, click the job section, and select the food or retail industry. Then, I would find jobs posted within the last two to three days and check to make sure they meet the requirements: entry-level and accepts applications through Craigslist (some employers post on Craigslist but require applicants to apply in person or through a call or text). I defined entry-level as a position that either did not need any prior experience or only needed one year of experience in the relevant industry. I would copy and paste the link to the job in my Excel spreadsheet to apply to later during the day or the day after.

3.4 - Submitting Resumes

To apply to Craigslist positions, I would click on a button on the job posting page, complete a captcha (a response test used to measure whether the user is a human or a computer), copy the email address, paste the email address into the applicant's email, copy and paste the

subject line, copy and paste the message of applying for the position, input the employer's name and job title into the email, attach the resume to the email, and send.

I submitted the resumes to the same employer with at least a thirty-minute delay, usually an hour, to not draw attention to resumes being submitted at the same time. I randomized the order in which the resumes were submitted for each position, with the first two being submitted on the first day and the last two being submitted on the second day. On Fridays, I submitted all four resumes on the same day with longer intervals between each one for the same employer.

3.5 - Data Collection

To receive callbacks, each resume is assigned an email address and a phone number based on the randomized gender identity of the applicant. In total, there were eight email addresses and sixteen phone numbers. There were two email addresses for each applicant name, one that indicated that the applicant was randomly assigned transgender identity and one that indicated cisgender identity. I used Yahoo for the email addresses because Google required phone verification each time I tried to open an account and would not allow using the same number to verify 8 different accounts. There were four phone numbers for each state, and each phone number indicated a different gender identity (cisgender man, cisgender woman, transgender man, and transgender woman). While the emails did not have to specify the state, there had to be phone numbers with the state area codes to mimic real job applicants and not draw suspicion from employers by having an area code from another part of the country.

I define a callback as any message (call, email, or text) from an employer or hiring manager that requests an interview or further communication with the applicant. The callback rate is biased downward for several reasons. First, there were three employers who left

voicemails or text messages without identifying the name of the company. Second, there were dozens of missed calls without voicemails, and there is no way to distinguish between a spam call and a call from an employer who did not leave a message. There were dozens of voicemails and text messages that were spam, so I speculate that almost all the missed calls without voicemails were also spam. Third, phone call and text data were lost for six phone numbers, the numbers for the cisgender woman and transgender woman in Arizona and all four phone numbers for California, for a three-week period of the experiment because of a technical issue with the phone number app Burner. 95% of the callbacks for New York and 71% of the callbacks for Texas were via email, so I speculate that this issue did not cause a loss of much data. To ensure the loss of data did not compromise the results, I performed regressions where I did not include callbacks by phone for Arizona. The results were consistent with the main results of the study: transgender women were 5 percentage points less likely to receive a callback than cisgender men, which is significant at the 5% level. Nevertheless, it is possible that the missing callbacks from Arizona and California would reveal a higher or lower level of discrimination.

3.6 - Empirical Specification

I use an Ordinary Least Squares regression model to quantify the likelihood of a job applicant to receive a callback:

$$Callback_{re} = \beta_0 + \beta_1\ CisgenderWoman_r + \beta_2\ TransgenderMan_r + \beta_3 TransgenderWoman_r + \beta_4\ CustomerFacing_e + \beta_5\ FullTime_e + \beta_6\ Food_e + \beta_7\ Republican_e + \epsilon_{re} \quad [1]$$

$Callback_{re}$ is the likelihood of the job applicant with resume *r* to receive a callback from employer *e*. $CisgenderWoman_r$, $TransgenderMan_r$, and $TransgenderWoman_r$ are binary variables for the randomized gender identity on resume *r*, with the excluded category being cisgender man.

$CustomerFacing_e$, $FullTime_e$, $Food_e$, and $Republican_e$ are binary variables for the job characteristics of employer e's job posting. ϵ_{re} is the error term. In addition to this specification, I also used an employer fixed effect model where F_e is the employer fixed effect:

$$Callback_{re} = \beta_0 + \beta_1\ CisgenderWoman_r + \beta_2\ TransgenderMan_r + \beta_3 TransgenderWoman_r + F_e + \epsilon_{re} \quad [2]$$

4 - Results

I randomized gender identity for the submissions so that 25% were cisgender men, 25% were cisgender women, 25% were transgender men, and 25% were transgender women. There were approximately 275 submissions and 69 employers to whom the applications were submitted for each state. Of the sample, 72% of the positions were customer facing while 28% were not. 65% of the positions were in the food industry while 35% were in the retail industry. 51% of the positions were fulltime while 49% were parttime or the employee's choice.

There is a 16% callback rate overall, which is standard for correspondence studies. For example, Bertrand and Mullainathan (2004) had an overall callback rate of 17%. Arizona has a 29% callback rate, California has an 8% callback rate, New York has an 8% callback rate, and Texas has a 21% callback rate, so there is sizeable variation in callback rates by state. The callback rate for transgender applicants is 2 percentage points lower than that of cisgender applicants, and the callback rate for women is 4 percentage points lower than that of men. Breaking down the results by gender identity, I find that the callback rates are 19% for cisgender men, 16% for cisgender women, 17% for transgender men, and 13% for transgender women.

Table 1 shows the regression of gender identity on the callback rates. Model 1 shows the basic OLS regression model, Model 2 includes the coefficients on the job characteristics, and

Model 3 includes employer fixed effects. The results show that being a transgender woman reduces the likelihood of a callback by 6 percentage points in comparison to being a cisgender man, which is statistically significant at the 10% level and at the 5% level when including employer fixed effects. The coefficients on being a cisgender woman or transgender man are not significant in any of the models. These results suggests that there is hiring discrimination against transgender women in the sample, but not against cisgender women or transgender men.

In Model 2, customer facing roles are 7 percentage points less likely to receive a callback than non-customer facing roles, which is statistically significant at the 1% level, and jobs in the food industry are 5 percentage points more likely to receive a callback than jobs in the retail industry, which is statistically significant at the 10% level. These coefficients suggest customer facing roles are more competitive, have a higher demand for labor than non-customer facing roles, or rely more on Craigslist, while the food industry is less competitive, has a lower demand for labor, or relies less on Craigslist than the retail industry. Model 3 has an R-squared of 57% and an adjusted R-squared of 42%, which are much higher values than the other models which range from 0.3% to 6.5%. This suggests that approximately 35% of the variation in the likelihood of receiving a callback is attributable to differences in the employer.

Table 2 shows the regression of gender identity on the callback rates by state. None of the coefficients on gender identity are significant except for the coefficient on being a cisgender woman in Texas: cisgender women in Texas are 12 percentage points less likely to receive a callback than cisgender men, which is statistically significant at the 10% level. There is variation in the coefficients on the job characteristics by state. Applicants in Arizona and Texas are respectively 12 and 17 percentage points more likely to receive a callback if the position is in the food industry than if it is in the retail industry, which are statistically significant at the 5% level

and 1% level. Applicants in California are 9 percentage points less likely to receive a callback if the position is in the food industry than if it is in the retail industry, which is statistically significant at the 5% level. New York applicants are 8 percentage points less likely to receive a callback if the position is customer facing than if the position is not customer facing, which is statistically significant at the 5% level. Arizona applicants are 9 percentage points less likely to receive a callback if the position is fulltime than if the position is parttime or the employee's choice, which is statistically significant at the 10% level. I did not find a detectable effect of the percentage of registered Republicans in each state on callback rates.

Table 3 shows a probit model for which I use the command dprobit to convert the log likelihood values to the likelihood of receiving a callback. The coefficients in the probit model are consistent with those in the linear models and are of a similar magnitude and sign. In Model 2, applicants who are transgender women are 5 percentage points less likely to receive a callback than cisgender men, which is statistically significant at the 5% level. This suggests that there is hiring discrimination against transgender women.

I perform regressions of the likelihood of receiving a callback on the binary variables if the applicant is transgender or a woman, but the coefficients on these two variables are not significant. This suggests that there is not discrimination against transgender individuals or women in the sample, so I fail to reject the hypotheses that transgender and cisgender applicants have the same callback rates, and that men and women have the same callback rates. I perform regressions that include interaction terms for the binary variables if the applicant is transgender or a woman with the binary variables for customer facing and fulltime positions, but none of the coefficients on the interaction terms are statistically significant. I conduct F-tests on those binary variables and interaction terms, but do not find any significant results. These results suggest that

applicants who are transgender and women do not experience differential discrimination based on if a position is customer facing or fulltime.

5 - Conclusion

On average, I do not detect discrimination based on transgender identity or for women in the hiring process of entry-level positions on Craigslist during February 2023. The coefficients on transgender identity and being a woman are not statistically significant, so I fail to reject the hypothesis that there is not hiring discrimination against transgender applicants or women in the sample. The regression of gender identity on the callback rate, however, shows that transgender women are 6 percentage points less likely to receive a callback than cisgender men, which is significant at the 5% level in the employer fixed effect model in Table 1. I reject the hypothesis that there is not hiring discrimination against transgender women.

The explanations for the lower callback rate for customer facing positions than non-customer facing positions include being more competitive, having a lower demand for labor, and relying less on Craigslist for the hiring process. Similarly, the higher callback rate for positions in the food industry than in the retail industry may be explained by positions in the food industry being less competitive, having a higher demand for labor, and relying more on Craigslist.

I am not able to determine if the discrimination against transgender applicants is taste-based or statistical. The idea behind statistical discrimination is that the employer lacks information about an applicant who holds one or more marginalized identities and assumes that the applicant's productivity is the average productivity of all individuals with the same marginalized identity (Lang and Spitzer 2020). This correspondence study is unable to measure if there is statistical discrimination.

Taste-based discrimination primarily reflects an employer's prejudice toward a certain identity or marginalized group of people, but may also include how the employer perceives the prejudices of workers and customers (Guryan and Charles 2013). An employer may not personally dislike transgender individuals but may discriminate based on the fear of cisgender workers having a problem with transgender workers or the fear of losing customers who are biased against transgender individuals. For these beliefs to be accurate, the employer must correctly assume that workers and customers are transphobic and that the workers and customers would be able to visibly recognize that a worker is transgender, which is not always the case considering that many transgender people pass as cisgender. Transgender applicants are not any less likely to receive a callback than cisgender applicants if a position is customer facing, so if there is taste-based discrimination against transgender individuals, then it is not attributable to employer concerns about customers' perception of transgender employees.

The unemployment rates for each metropolitan area during February 2023 were similar: 2.9% for Phoenix, AZ, 5.2% for Los Angeles, CA, 5.4% for New York, NY, and 4.8% for Houston, TX (US Bureau of Labor Statistics 2023). The high callback rate for Phoenix reflects the lower unemployment rate for the area from the sample. The differences in the unemployment rates of the other metropolitan areas are not substantial, so it is strange that Houston had a much higher callback rate than Los Angeles and New York in the sample.

There are studies that measure hiring discrimination across multiple waves over time and show that employers are less likely to discriminate when they need labor (Boulware and Kuttner 2019). The United States labor market has suffered a labor shortage during 2022 and the beginning of 2023, so I speculate that employers are less likely to discriminate because they do not have bargaining power in choosing their ideal workers. There is an anecdotal example from

the study that reflects this: a few days after all four resumes were submitted for one job in Arizona, the two cisgender applicants both received an interview offer. After the cisgender applicants declined the offer, the employer then proceeded to contact the two transgender applicants and offer them interviews. This case demonstrates that employers may prefer cisgender applicants but accept transgender applicants when they experience a labor shortage.

This correspondence study has external validity for binary transgender individuals applying to entry-level positions on Craigslist in United States metropolitan areas. The study does not include non-binary transgender individuals because a first name cannot effectively signal that someone is non-binary by itself or in contrast with a birth name. The resumes were only submitted to positions in major United States cities and the surrounding urban areas, so it is not generalizable to job postings in rural areas or in other countries. The hiring process of employers using Craigslist may be different than that of employers using more mainstream job websites; however, there were several positions posted from mainstream companies in addition to the various positions posted by small businesses and restaurants.

This experiment has the same weaknesses as all other correspondence studies: it only measures discrimination at the initial level of receiving a callback from an employer. Correspondence studies cannot measure discrimination at later stages of the hiring process or the discrimination that workers experience once they are hired. One weakness specific to this experiment may be the signal of transgender identity. It is possible that some employers did not understand that the applicant was transgender based on the contrast between the genders of the legal name and preferred name listed near the top of the transgender resumes. Future correspondence studies on transgender identity could include a statement that directly states that

an applicant is transgender; however, that signal is not consistent with the applications of actual transgender individuals, which is something correspondence studies must strive for.

There are pathways for future correspondence studies on transgender identity. Button et al. (2020) found that while white applicants do not face a penalty for being transgender in accessing therapy sessions, black and Latinx applicants face a penalty for being transgender. There is the implication that transgender people of color may experience more discrimination than white transgender people, so future correspondence studies could measure race by including first names that signal race in addition to gender, such as in Bertrand and Mullainathan (2004). In addition to transgender men and transgender women, future correspondence studies could include non-binary individuals to measure the difference in discrimination between binary (transgender men and transgender women) and non-binary transgender individuals.

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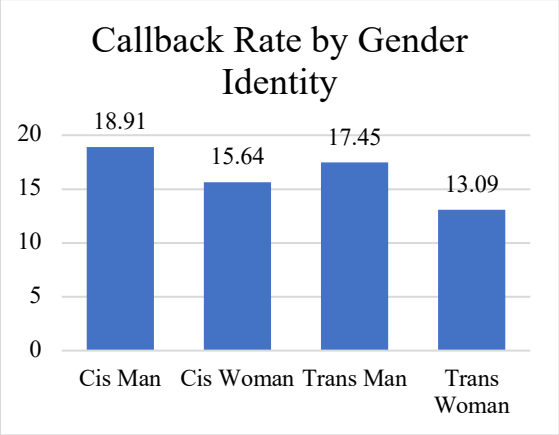
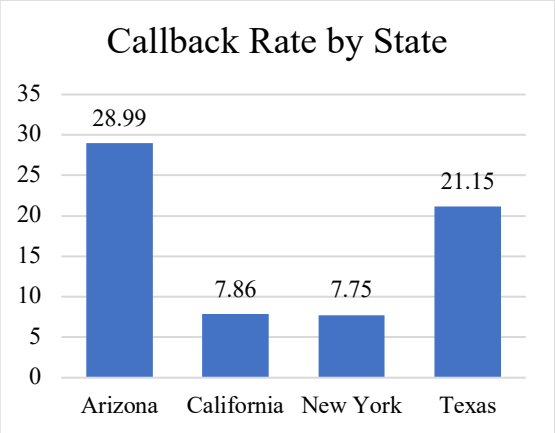
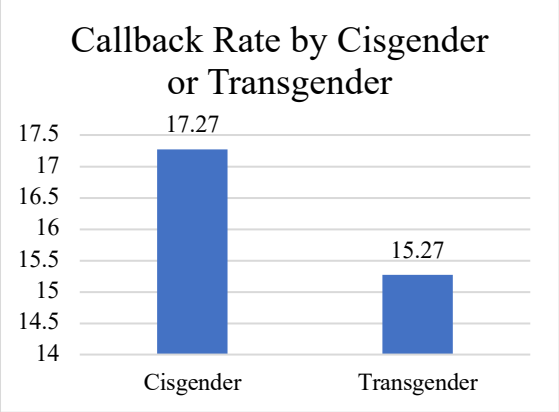
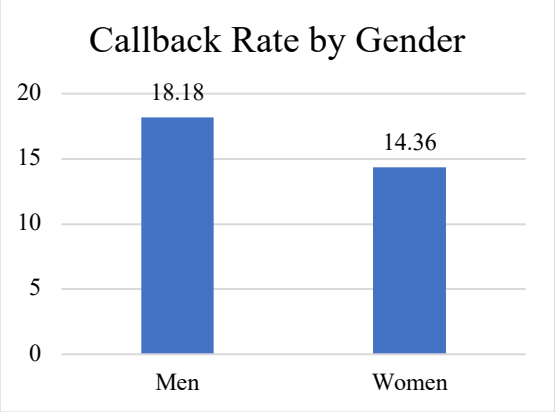
Appendix

Summary Statistics

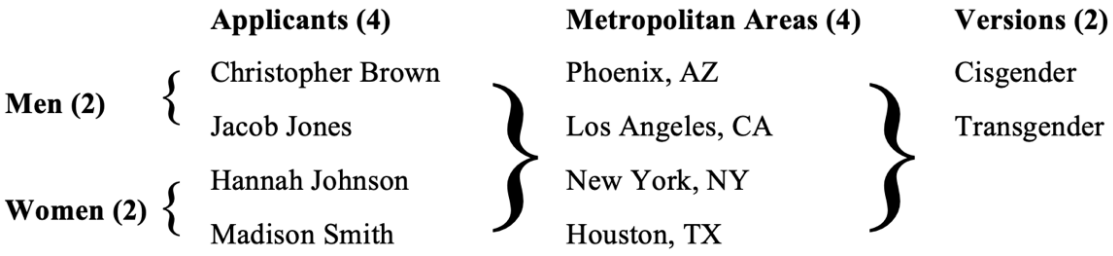








Resume Breakdown



Sample Resume of Transgender Applicant

Jacob Jones

My preferred name is Jacob, but my legal name is Emily.
Phoenix, AZ
Phone Number
Email Address

PROFESSIONAL EXPERIENCE

AMAZON FULFILLMENT CENTER, **Tucson, AZ**
Warehouse Clerk *Sep 2021–Present*

- Received orders and unloaded packages from the truck and stored them properly in the warehouse.
- Maintained accurate records of the materials received and transported out of the warehouse; submitted records to the senior manager.
- Documented and managed the inventory control system in the computer placed in the warehouse using scanners and barcode readers.
- Maintained a clean work environment, and kept tools and equipment used for unloading and loading goods in their assigned places.

APPLEBEE'S, **Mesa, AZ**
Server *July 2016–August 2018*

- Warmly greeted guests, anticipated needs, and remained available throughout the dining experience
- Showcased daily breakfast, lunch, and dinner features, detailing key cuisine elements
- Prioritized and coordinated execution of tasks accordingly
- Quickly cleaned and set tables to maximize table turnover and restaurant efficiencies

EDUCATION

UNIVERSITY OF ARIZONA **Tucson, AZ**
Bachelor of Arts in Psychology, *May 2022*
Swim Team

BASIS CHANDLER **Chandler, AZ**
May 2018

Sample Email - Job Application

Hello,
I am interested in the X position and have attached my resume to this email.
Sincerely,
Jacob Jones

Sample Email – Declining an Interview Offer

While this position seems like a great opportunity, I've decided that now is not the best time to leave my current position and will not proceed with the interview process.
Thank you,
Jacob Jones

Table 1: Impact of Gender Identity on Callback Rates

	(1) Model 1	(2) Model 2	(3) Model 3
Cis Woman	-0.0327	-0.0327	-0.0327
	(0.0323)	(0.0323)	(0.0239)
Trans Man	-0.0145	-0.0145	-0.0145
	(0.0329)	(0.0327)	(0.0239)
Trans Woman	-0.0582*	-0.0582*	-0.0582**
	(0.0312)	(0.0310)	(0.0239)
Customer Facing		-0.0688***	
		(0.0264)	
Food Industry		0.0450*	
		(0.0230)	
Fulltime Position		-0.0332	
		(0.0229)	
Constant	0.189***	0.227***	0.189***
	(0.0237)	(0.0374)	(0.0169)
Observations	1,100	1,100	1,100
R-squared	0.003	0.016	0.568
Employer FE	No	No	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 2: Impact of Gender Identity on Callback Rates by State

	(1) Arizona	(2) California	(3) New York	(4) Texas
Cis Woman	-0.0580	0.0143	0.0282	-0.123*
	(0.0793)	(0.0484)	(0.0464)	(0.0703)
Trans Man	-0	-0	-0.0141	-0.0462
	(0.0800)	(0.0473)	(0.0404)	(0.0754)
Trans Woman	-0.116	-0.0429	0.0141	-0.0923
	(0.0756)	(0.0409)	(0.0443)	(0.0719)
Customer Facing	0.0294	0.00622	-0.0816*	-0.0350
	(0.0572)	(0.0449)	(0.0490)	(0.0577)
Food Industry	0.123**	-0.0932**	-0.0171	0.168***
	(0.0577)	(0.0379)	(0.0377)	(0.0530)
Fulltime Position	-0.0912*	-0.00344	-0.0418	0.0540
	(0.0551)	(0.0324)	(0.0342)	(0.0567)
Constant	0.270***	0.138***	0.170***	0.162*
	(0.0892)	(0.0529)	(0.0640)	(0.0892)
Observations	276	280	284	260
R-squared	0.038	0.035	0.026	0.054

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3: Probit Model (dprobit)

	(1) Model 1	(2) Model 2
Cis Woman	-0.0304	-0.0296
	(0.0290)	(0.0289)
Trans Man	-0.0133	-0.0139
	(0.0297)	(0.0294)
Trans Woman	-0.0555**	-0.0565**
	(0.0280)	(0.0276)
Customer Facing		-0.0676**
		(0.0264)
Food Industry		0.0449**
		(0.0225)
Fulltime Position		-0.0343
		(0.0225)
Observations	1,100	1,100

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1