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ABSTRACT

Gender Norms and the Motherhood Penalty: Experimental Evidence from India*

This paper uses a field experiment to study the effect of perceived gender norms on the motherhood penalty in the Indian labor market. We randomly reported motherhood on fictitious CVs sent to service sector job openings. We generated exogenous variation in gender norms by prominently signaling patrilineal or matrilineal community origins of applicants. Employers are less likely to callback mothers relative to women or men without children, but only if they are of patrilineal origin. Mothers of matrilineal origin face no such penalty. We discuss the results in relation to the competing influence of ethnicity, the Indian context and theories of discrimination.

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1 INTRODUCTION

Around the world, a substantial proportion of women do not participate in labor markets. If women do work, they tend to earn less than men, and face entry barriers in certain jobs or challenges in terms of climbing the career ladder. While gender gaps have narrowed, they remain large in some regions of the world and are often attributed to motherhood (Weichselbaumer and Winter-Ebmer, 2005; Goldin, 1994, 2014; Goldin et al., 2017; Klasen and Pieters, 2015; Verick, 2014; Das and Zumbyte, 2017).

Another strand of the literature has examined if differences in underlying preferences may explain gender gaps. For instance, if appetite for competition varies between men and women (Croson and Gneezy, 2009; Charness and Gneezy, 2012; Niederle and Vesterlund, 2011), or between women with and without children, this could in turn influence selection into certain types of jobs (Cassar et al., 2016). However, this in turn raises a deeper question as to what forms these gender differences. A growing experimental literature has turned to the role of culture and society (Gneezy et al., 2009; Hoffman et al., 2011; Andersen et al., 2013; Cadsby et al., 2013). Some of these studies speak to the heated nature versus nurture debate using cross-cultural experiments. For instance, Gneezy et al., (2009) compare competitive preferences of men and women living in a patrilineal (the Maasai in Tanzania) and a matrilineal (the Khasi in India) community. In matrilineal cultures such as the Khasi, maternal grandmothers head households, and eventually transmit wealth and power to their youngest daughters. After marriage, men join their wives' households and have little to no say over resources. Men take on stereotypically "female" tasks such as childcare. Intriguingly women are as competitive in experiments as men if they live in such a matrilineal society (see Gneezy et al., 2009). Yet it is unclear if such culturally induced gender differences have a bearing on labor market outcomes.

In order to carve out the potential links between gender, culture and actual labor market outcomes, we focus on a key event in many women's lives, motherhood. As mentioned above, labor markets tend to penalize mothers in terms of wages and job opportunities (Budig and England, 2001; Anderson et al., 2002; Gangl and Ziefle, 2009; Benard and Correll, 2010; Budig and Hodges, 2010; Budig et al., 2012; Goldin et al., 2017). Notably, Correll et al. (2007, p.1298) hypothesize that mothers are often discriminated against compared to non-mothers, as employers may consider them "less competent and less committed to their jobs." The authors find that, in the United States, (exogenously) reporting

motherhood on CVs halved callback rates to actual job applications.[1] Perceptions of working mothers tend to reflect "patriarchal" stereotypes. Benard and Correll (2010, p.1) write that "highly successful mothers" are seen as "less warm, less likable, and more interpersonally hostile." Put differently, patriarchal norms shape the image of the "ideal" mother. Culture determines if mothers should or even may participate in labor markets (Budig et al., 2012).

Bringing together the literature on the motherhood penalty and the effect of culture on gender competitiveness, we hypothesize that mothers from matrilineal societies are less likely to face a motherhood penalty. Employers are likely to value their competiveness, cultural background and supportive household arrangements, for instance, when it comes to childcare and are likely to view them as "*more* competent and *more* committed to their jobs."

This paper examines the labor market success, as measured by interview callback rates of mothers and non-mothers from matrilineal and patrilineal societies in India. Similar to Correll et al. (2007), the paper is based on a CV experiment and building on Gneezy et al. (2009), proposes a cross-cultural identification strategy. We quantify if employers (regardless of their own societal origin) differentiate between applications sent by mothers and non-mothers *within* matrilineal and patrilineal societies. To execute the experiment, which was conducted in two rounds, we searched for entry-level jobs in call centers or business process outsourcing (BPO) and in the financial sector, across three Indian cities.[2] In the first round we sent three female CVs, with no prior work experience, to each job posting. Applicants were mothers or non-mothers of Khasi (matrilineal), Naga or Bengali (patrilineal) origin. In a second round, to examine the potentially moderating effect of experience, CVs did indicate experience. Furthermore, in both rounds, to net out overall effects of gender and community we also sent male CVs from each of the three communities. In total, we sent 1276 CVs (957 female, 319 male) to 319 job openings.

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[1] In fact, controlling for qualifications, women without children did better than men without children. A more recent CV experiment in Sweden found no differences in callback rates across gender and/or parenthood (Bygren et al., 2017).

[2] We focused on entry-level jobs and these sectors for two main reasons. First, these sectors offer a steady and relatively large volume of job advertisements. Related literature also underlines the importance of the chosen sectors. For instance, Jensen (2012, p.754) notes that the BPO field *"…has grown rapidly in India over the past decade, creating a significant number of new, high-paying job opportunities, particularly for women."* Second, focusing on entry level jobs allowed us to examine whether work experience translated into an advantage for mothers.

Our paper makes three contributions to the literature. *First*, we provide causal evidence on societal origin and labor market success of women with and without children. We build on previous gender experiments across cultures (Gneezy et al., 2009; Hoffman et al., 2011; Andersen et al., 2013; Cassar et al., 2016). However, rather than focusing on preferences, we directly examine the effects of culture on labor market success in the context of one of the most important dimensions of gender and labor markets, namely motherhood.

Second, we add to the broader literature on female labor market participation in developing countries. Many factors influence whether women work or not in developing countries, including changes in income per capita, the structure of the economy, fertility trends, education levels, and social policies (Verick, 2014; Gaddis and Klasen, 2014; Bloom et al., 2009; Mammen and Paxon, 2000; Goldin, 1994). In some countries, most notably India, female labor force participation is lagging behind favorable economic and demographic dynamics (Klasen and Pieters, 2015). To the best of our knowledge, there is no experimental evidence on the labor market consequences of motherhood and gender norms in a developing country setting. Such evidence is likely to be useful in motivating and designing childcare policies.

Third, in addition to identifying the labor market effects of gender, culture and motherhood, our setting allows us to examine the effect of ethnicity. Both the Khasi and Naga are from north-eastern India and while women from north-east India are considered to be more empowered or have a better status as compared to women from the rest of the country (Ladusingh and Singh, 2006) at the same time people from the north-east are reportedly discriminated against in cities such as Delhi (McDuie-Ra, 2013; Irfan, 2011). However, there is no credible evidence on the extent of such ethnic-based discrimination in the labor market. Thus, our paper feeds into a growing experimental literature on labor market discrimination in emerging and developing countries (Banerjee et al., 2009; Siddique, 2011; Galarza and Yamada, 2014, 2017; Beam et al., 2017).

To preview our results, we find that mothers are substantially less likely to receive callbacks (-14%-points). This effect varies considerably across communities. Only mothers from patrilineal societies are affected, while mothers from matrilineal societies face no such penalty. Interestingly, we do not find gender differences in callback rates for male and female applicants *without* children. Consistent

with findings from the US (Correll et al., 2007), gender differences materialize only due to motherhood. In the second round of the experiment where we added experience to all CVs, qualitatively similar patterns emerge, although, the magnitude of the adverse motherhood effect is smaller. With regard to ethnicity we find that women from the north-east receive substantially fewer callbacks as compared to Bengalis. This gap arises mainly to differences in callback rates in the financial sector.

This paper is organized as follows: Section 2 outlines the empirical strategy. Section 3 presents the main results and related robustness checks. Section 4 discusses the findings within the Indian context and in relation to theories of discrimination.

2 EMPIRICAL STRATEGY

We implemented a field experiment to test for the effect of reporting motherhood on callback rates to job applications in three Indian cities and two industry sectors. Our aim was to examine motherhood effects conditional on community origin and ethnicity. This section details the choice of communities, the selection of jobs, the design of applicant profiles as well as treatments and experimental procedures.

Selection of Communities

We first picked matrilineal and patrilineal societies. For the matrilineal treatment we chose the Khasi community. The Khasi community which is based in and around the city of Shillong and in the Khasi hills in the northeastern Indian state of Meghalya was chosen for two reasons. First, there is experimental evidence that women from the Khasi community are as competitive as men from other patrilineal societies (Gneezy et al. 2009). We thus expect that gender-related treatments such as motherhood are likely to have a lower effect on callback rates. Second, amongst the handful of matrilineal societies in India, the Khasi community is one of the largest and perhaps most well-known across India. For the patrilineal treatment, we selected the Bengali community from the eastern Indian state of West Bengal. However, simply comparing Bengali women and Khasi women is not straightforward as there may be discrimination against people from north-eastern India which may confound or drive the heterogeneous impacts of motherhood across Bengali and Khasi CVs. We address this issue in two ways. First, we selected an additional patrilineal community, the Naga, who are also from north-eastern India, who are physically similar to the Khasi and both groups are predominantly Christian. Second, we sent out male CVs from all three communities to document

overall callback rates. With this set-up at hand, we can decompose callback rates by gender, motherhood and community origin.

Selection of Job Market and Postings

We focused on job markets in three of India's most cosmopolitan cities, that is, Delhi, Mumbai and Chennai. All three cities have residents from the three communities. There is survey evidence which suggests that 48% of all north-east people residing in Indian cities live in Delhi (NESCH, 2011 as quoted by McDuie-Ra, 2013, p.1629 and Irfan, 2011).

We used the most popular Indian job website to search and apply for jobs in these three locations. Women in urban India are most likely to work in the service sector and the job website features a steady volume of service-sector positions. We focused on low- to medium skilled jobs in two broad sectors: (i) Business Process Outsourcing (BPO) and call center jobs, (ii) Banking/Finance/Insurance. Both sectors feature a steady and large volume of job ads required for the experiment. We selected jobs that were open to both experienced and inexperienced applicants.[3]

Design of Applicant Profiles

Based on input from a human resource consultancy firm, we designed several fictitious resumes. Our aim was to build comparable CVs across applicants and most importantly clearly signal community origins. All CVs provided a current address in the respective job market city, and also a permanent address in the home community. For the latter, we picked thee cities from each community – Siliguri, Shillong and Kohima for Bengali, Khasi and Naga applicants, respectively.[4] We also used names which are typical for each of the three communities. All fictitious participants had the same education level, graduated from comparable colleges and acquired their high school education in English medium schools in their native places. In India, there is a strict hierarchy of academic disciplines with the hard sciences situated at the top. We assigned three comparable, relatively less prestigious academic subjects to our applicants – Political Science, Sociology and History. All our applicants were legally

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[3] We have saved screenshots of all the positions to which resumes were sent. These are available on request.

[4] The main Bengali city is of course Kolkata. However we picked Siliguri to better match the size and status of the other cities.

married and aged 25 to 28.[5] In the first round of data collection, the applicants had no prior job experience while in the second round of data collection we sent out the same CVs with about two years of relevant job experience.

We signaled community origins in five ways. First, we used typical Khasi, Naga or Bengali names and provided a permanent address, and details on schooling and college which indicated their respective home states. Second, current addresses on all the CVs indicated C/O (care of). In the case of Khasi CVs, it was the applicant herself while the Bengali and Naga CVs featured the names of husbands. Third, the permanent addresses of the applicants mention the names of parents, which is common in India. In the case of Khasi CVs, we used D/O (daughter of) and used a female (mother's) name and in the case of Naga and Bengali CVs, we used C/O and used a male (father's) name. Fourth, Khasi applicants had the same surname as their mother, while the patrilineal applicants had the same surnames as their husbands. Finally, in the case of Khasi CVs, we also mentioned that Khasi was the native language.

Motherhood Treatment and Procedure

We reported motherhood (1 child between 2-2.5 years of age) allowing for *within* job posting variation (at least one mother and non-mother per job posting). Thus, there were six possible combinations to assign the motherhood treatment to the three female CVs. Before searching for jobs and sending out the CVs, we randomly determined the sequence in which these six combinations were applied throughout the ensuing experiment. To each job posting, we also randomly sent out *one* of three additional male CVs (without reporting fatherhood). This allows us to examine overall differences in callback rates amongst the different communities.

In total, we used twenty seven CVs – nine (three mother, three non-mother and three male) in each of the three cities. Each CV was assigned a unique email id and phone number to record callbacks. All CVs are available on request from the authors.

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[5] Given that we sent three female CVs to each job posting, profile details and CV format could not be identical. However this should not be a concern, given that we estimate the within community impact of motherhood. An alternative would have been to vary some CV characteristics (e.g. age, type of degree) across jobs within applicants, however this would have further increased the already large number of CVs (27) and the complexity of data collection.

Data collection took place between July and September of 2017. The experiment was conducted in two rounds and our overall sample consists of 1276 applications (male, female) sent to 319 job openings. In the first round, our target sample size was at least 200 female applications per community.[6] In a smaller, second round, we sent out CVs *with* job experience for a total of 90 applications per community. Table 1 summarizes realized sample sizes by communities, and mother and non-mother treatments. In total, we sent out 957 female applications across 258 firms. In addition, we sent out 229 (1st round) and 90 (2nd round) male applications well-balanced across sectors, communities and cities.

3 RESULTS

We first present simple differences in mean callback rates across communities, then regression-based estimates and finally sector and city-specific estimates.

Baseline Results

Figure 1 shows callback rates for non-mothers and mothers without prior work experience. The average callback rate is 21%. However, mothers receive substantially fewer callbacks (14%) than non-mothers (28%). In other words, reporting motherhood on CVs halves callback rates. The motherhood treatment effect amounts to -14%-points and is precisely estimated (p-value=0.00).

Motherhood treatment effects vary considerably across patrilineal and matrilineal applicants. However, before discussing these effects, it is useful to consider baseline callback rates across communities, that is, callback rates for applicants without children and no prior work experience. Figure 2, Panel A reports results for women and Panel B for men. This exercise allows us to net out community-specific and gender effects from the motherhood penalty. There is a clear hierarchy. Bengali applicants receive about twice the number of callbacks as compared to Naga and Khasi applicants. This is consistent with the expectation that individuals from the north-east experience discrimination. At the same time there is no statistically significant difference in callback rates between

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[6] We carried out power calculations for a test of two proportions using the "pwr" package in R. Setting Cohen's h to 0.4 (small to medium effect), power to 80% and significance level to 5%, the proposed sample size was 200 for each community. In practice, we slightly exceeded this target.

Nagas and Khasis. Furthermore, callback rates for female and male applicants are similar (compare Panels A and B). These "baseline" patterns which show no gender differences but sharp community-based differences lends credibility to our strategy of comparing motherhood effects between Naga and Khasi women.

Figure 3 illustrates that the motherhood penalty decreases as empowerment of women increases (moving from Panel A, B to C). Panel A shows that amongst Bengali women, the treatment effect associated with motherhood is almost -30%-points (p-value=0.00). This is a very large effect with Bengali mothers experiencing a low 10% callback rate. In fact, this is the lowest callback rate in our experiment across communities and applicants (both male and female). Panel B shows qualitatively similar but smaller effects for Naga women. This smaller effect may be attributed to the general perception that women from north-eastern India are more empowered compared to the rest of India (Ladusingh and Singh, 2006; Jayachandran and Pande, 2017).[7] The motherhood penalty amounts to 9%-points (p-value=0.08). This is still a sizeable reduction of about 40%. Panel C shows no motherhood penalty for Khasi women. In sum, motherhood penalties only affect women from patrilineal communities, which suggests that differences in callback rates across motherhood status may be attributed to statistical discrimination.

Regression Results

Table 2 reports results from a linear probability model. Column 1 reports estimates adjusting only for community effects (Naga and Khasi). The coefficient associated with the motherhood treatment is -14%-points. In column 2, we add dummies for cities and sector of employment. The motherhood effect is unaffected by these additional covariates, which is unsurprising given experimental balancing. In column 3, we further include interaction terms between motherhood and communities. The excluded category is a Bengali mother. Consistent with Figure 3, we document large negative motherhood effects for Bengali women (30 %-points) and to a lesser extent for Nagas (9%-points), but there are no negative motherhood effects for Khasi women. The interaction term between Khasi applicants and motherhood (27%-points) statistically offsets the negative main effect of motherhood.

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[7] Ladusingh and Singh (2006, p.67) state: *"The social status of women in the Northeast India is high relative to that of women in many parts of the country where purdah and caste based rules restrict their activities."*

So far, we have analyzed motherhood effects for women with no prior job experience. In the second round we sent out a smaller set of applications with the same CVs but with two years of job experience.[8] As shown in column 4, it does seem that experience weakens the motherhood penalty. However, we still find a motherhood penalty of 8%-points which is statistically significant at the 10% level and while the effect is smaller in magnitude (by 6%-points) as compared to CVs with no experience, the difference is not statistically significant (p-value=0.31). In column 5, we find very similar qualitative patterns across communities but the estimates are not precise. Across the two samples, tests for equality of the main effect as well as the community interactions fail to reject the nulls at conventional levels.[9] Similar to the results based on the sample without experience, Khasi applicants do not experience a motherhood penalty. The main effect of motherhood (-18%-points) is completely offset by the corresponding interaction term (19%-points). The motherhood effect for Nagas amounts to -7%-points, but it is imprecisely estimated.

Heterogeneity by Sector

Table 3 provides pooled estimates based on both rounds of data collection (column 1 and 2) and sector-specific estimates (columns 3 to 6). Column 3 shows that there is a motherhood penalty in the call center/BPO sector (17%-points) but there are no negative effects associated with belonging to the north-east. The motherhood-community interaction specification (column 4) confirms the sizeable motherhood penalty while at the same there is a significant and positive interaction term for women from the Khasi community (column 4). In the finance sector the motherhood penalty is lower (7%-points) but women from the north-east experience an additional penalty of -9 to -11%-points. The motherhood penalty varies across communities with Bengali mothers experiencing a substantial penalty, while there are no negative effects for mothers from the Naga community and perhaps even a small premium for Khasi mothers.

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[8] In the case of male CVs reporting prior experience, callback rates amount to 43% for Bengali, 21% for Naga and 19% for Khasi applicants. In other words, male community patterns are qualitatively similar to those stemming from the first experiment without job experience.

[9] Tests for equality of coefficients in Table 2 across inexperienced (column 3) vs. experienced (column 5) samples: Mother, p-value=0.30; Mother x Naga, p-value=0.54; Mother x Khasi, p-value=0.60.

Heterogeneity by City

In Table 4, we split samples by cities. The coefficient associated with motherhood is negative across all locations and specifications but varies across communities.

In Delhi, column 1 reports that mothers experience a penalty of 20%-points. Column 2 shows that the motherhood effect is particularly pronounced for Bengali women (-40%-points), is smaller for Naga applicants (-17%-points) while Khasi women do not experience a motherhood penalty. In Mumbai, the overall effect of motherhood amounts to -12%-points (column 3). The community-motherhood interaction terms indicate that at least qualitatively Khasi and Naga mothers suffer less. However, these interaction terms are imprecisely estimated. In Chennai, the overall motherhood penalty amounts to an insignificant 5%-points (column 5). This small effect masks heterogeneity by community origins. Bengali mothers face a penalty of 19%-points, while we find offsetting effects for both Naga and Khasi women.

4 DISCUSSION AND CONCLUDING REMARKS

In contrast to, but building on the existing literature (e.g., Gneezy et al., 2009), which has focused on gender, culture and competitive preferences, this paper examined the direct effect of culture on labor market success in the context of an important dimension of gender and labor markets, namely motherhood. We found strong evidence of a motherhood penalty in callback rates to job applications in India. This penalty was starkly mediated by culture (patrilineal versus matrilineal). There was also suggestive evidence that job experience may moderate this penalty. We did not find noteworthy gender differences in callback rates when we differentiated by community origins. In other words, gender norms are most relevant on the labor market when it comes to motherhood. We also documented differences in callback rates across ethnic groups (Khasi and Naga versus Bengali) and found that these differences were concentrated in the Finance/Banking sector.

While it is not our intention to formally test whether differences in callback rates may be attributed to taste-based (Becker, 1971) or statistical discrimination (Phelps, 1972), our estimates do speak to both forms of discrimination. With regard to motherhood, if fully prejudiced, employers would discriminate against mothers regardless of their cultural background (matrilineal versus patrilineal) or ethnic origins. In contrast, statistical discrimination would predict that employers may discriminate against mothers, but may use observable signals of community or ethnic origin to proxy for unobservable traits

such as competitiveness. The erosion of the motherhood penalty for women coming from a matrilineal background and the substantially lower motherhood penalty for women from the north-east, who are generally considered more empowered as compared to women from other parts of India, points to statistical discrimination based on visible traits.

With regard to ethnic-based differences in callback rates, if differences are mainly driven by animus towards people from the north-east then callback rates should not vary substantially across job sectors. However, we find that in the BPO/Call Centre sector where there is limited face-to-face client interaction and traits such as English speaking skills and flexibility (late night shifts) are relatively more important, women from the north-east face no discrimination, while in a sector (finance/insurance) where employee-client interactions are more likely, employers tend to favor Bengalis.[10] If we assume that clients prefer to interact with Bengalis then employers may favor Bengalis even if they themselves are not prejudiced. Overall, the difference in ethnicity-specific callback rates across sectors also tends to support statistical discrimination.

Our experimental evidence complements previous analyses of the "puzzling" Indian labor market. Klasen and Pieters (2015) report that the labor market participation rate of women in urban India has been stuck at around 18% over the period 1987 to 2011 despite drops in fertility and increases in female education. The authors argue that men's education and household income have risen starkly so that women, despite having higher levels of education may choose to stay at home. Thus far, one important dimension that has received far less attention is motherhood and related gender norms. Our findings echo a recent paper by Das and Zumbyte (2017, p.5) pointing to a strong role of motherhood norms and the lack of modern childcare in India: *"… women who are not perceived as fulfilling the role in the traditional sense are censured, either overtly or covertly, both within the home and outside."* Analyzing several rounds of employment surveys and controlling for a host of observables, Das and Zumbyte find that the odds ratio of employment among non-mothers compared to mothers (with at

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[10] In January 2018, we conducted seven key informant interviews in Chennai. A former call center/BPO recruiter (male, 48 years) mentioned that for call center positions his firm preferred to hire women from the north-east as compared to Bengali women as it was easier to train women from the north-east to modify their English accents. An experienced recruiter (female, 50 years) argued that we do not discriminate but we "filter" while recruiting. She went on to elucidate that for jobs that require sales and marketing skills we prefer women from Delhi and Mumbai while for jobs that require numerical skills we prefer women from the South.

least one child under the age of 6) was 1.4 in 2011. In our experiment, the baseline odds ratio (Figure 1) is 2.3. Our outcome variable does not directly translate into actual employment and our experimental setting focused on specific sectors and cities, but the sizeable motherhood effect size that we find squares with this relatively large observational estimate.

As countries such as India develop, qualified women will be increasingly drawn into the expanding sectors investigated in this study such as BPO (Jensen, 2012). While fertility levels are on the decline, just one child may substantially penalize women on the labor market. This paper finds that a supportive culture may mitigate this penalty.

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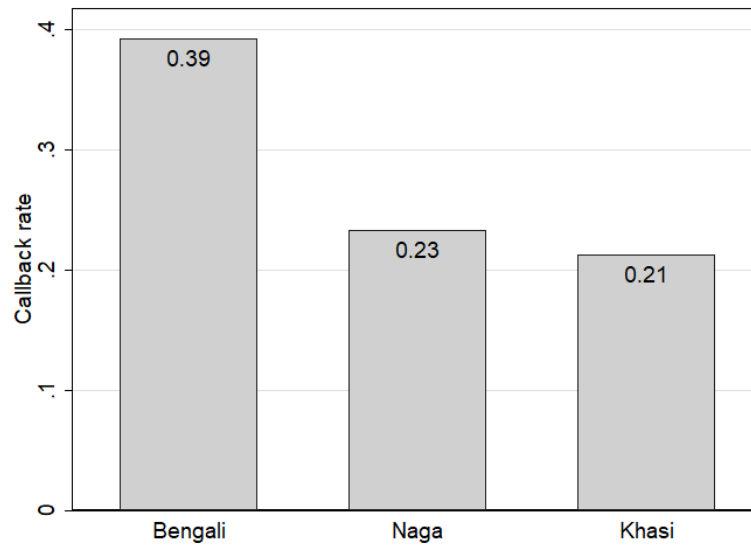
6 FIGURES

Figure 1: The impact of motherhood on callback rates for women *without* prior job experience (Δ -13.62%-points, p-value=0.00, n=687)
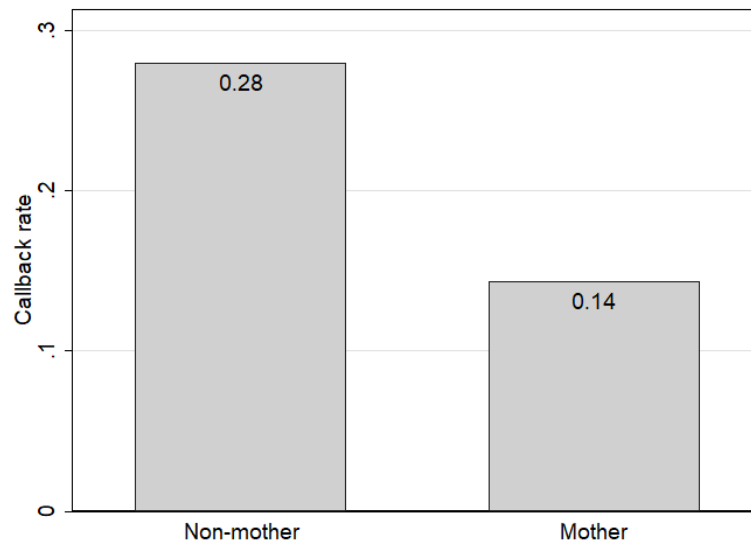
Note: P-value stems from linear regression-based t-tests adjusted for clustering at the job posting level (229 jobs).

Figure 2: Baseline callback rates for patrilineal (Bengali, Naga) and matrilineal (Khasi) women and men (*without* children/ *without* prior job experience)

Panel A: Women (non-mothers)

Δ p-values (N=344)
Bengali vs. Naga: 0.00
Bengali vs. Khasi: 0.00
Naga vs. Khasi: 0.68

Panel B: Men (non-fathers)
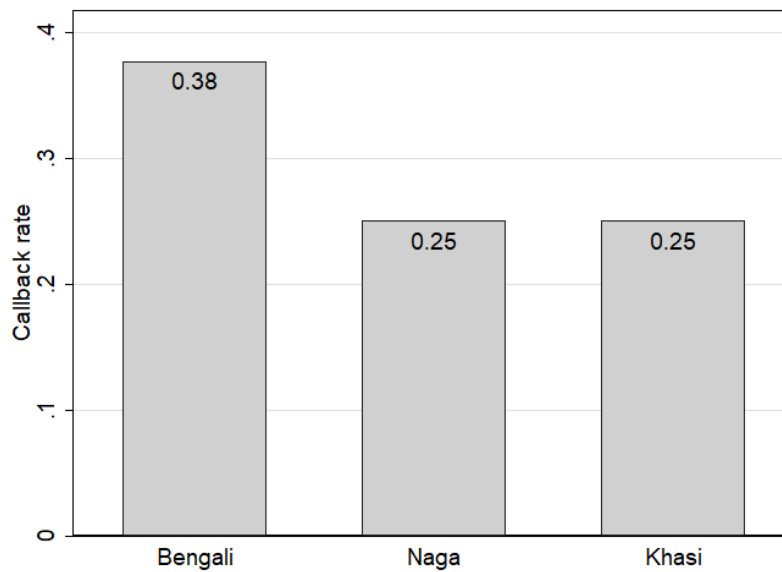
Δ p-values (N=229)
Bengali vs. Naga: 0.10
Bengali vs. Khasi: 0.09
Naga vs. Khasi: 1.00

Note: P-values stem from linear regression-based t-tests adjusted for clustering at the job posting level (229 jobs, Panel A) or heteroscedasticity (Panel B).

Figure 3: The impact of motherhood on callback rates for patrilineal (Bengali, Naga) and matrilineal (Khasi) women (*without* prior job experience)

Panel A: Bengali – Patrilineal (Δ -29.48%-points, p-value=0.00, n=229)
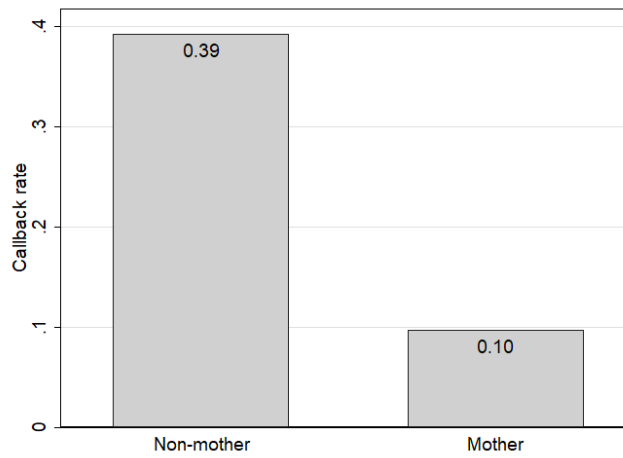
Panel B: Naga - Patrilineal (Δ -9.12%-points, p-value=0.08, n=229)
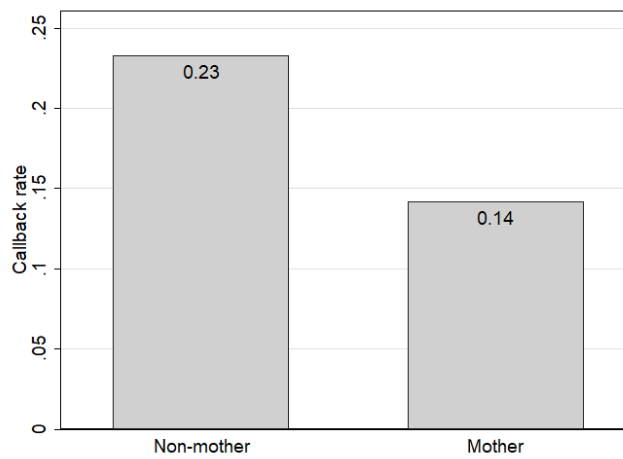
Panel C: Khasi - Matrilineal (Δ -2.27%-points, p-value=0.67, n=229)
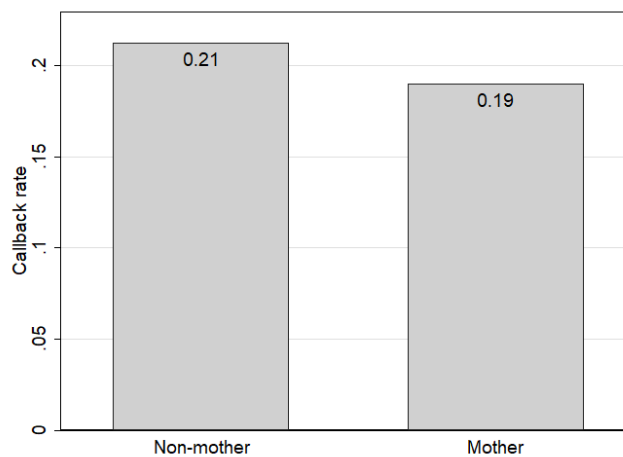
Note: P-values stem from linear regression-based t-tests adjusted for heteroscedasticity.

7 TABLES

Table 1: Sample sizes for female sample

	No prior job experience (1st round experiment)		Experienced (2nd round experiment)		
	Non-mother	Mother	Non-mother	Mother	Total
Bengali	115	114	44	46	319
Khasi	113	116	46	44	319
Naga	116	113	44	46	319
Total applications (job openings)	**344**	**343**	**134**	**136**	**957 (258)**
… broken down by place and sector:					
Chennai	117	111	44	46	318
Delhi	112	116	45	45	318
Mumbai	115	116	45	45	321
Call center, Business Process Outsourcing (BPO)	182	178	63	72	495
Finance, banking, insurance	162	165	71	64	462

Table 2: Linear probability model

Dep. var. Callback	(1)	(2)	(3)	(4)	(5)
Mother	-0.14***	-0.14***	-0.30***	-0.08*	-0.18*
	(0.03)	(0.03)	(0.05)	(0.04)	(0.09)
Group (Bengali is excl.)					
Naga	-0.06**	-0.06**	-0.16***	-0.07	-0.12
	(0.02)	(0.02)	(0.05)	(0.04)	(0.09)
Khasi	-0.04	-0.04	-0.18***	-0.11**	-0.21**
	(0.03)	(0.03)	(0.05)	(0.04)	(0.08)
Mother x Naga			0.21***		0.11
			(0.08)		(0.14)
Mother x Khasi			0.27***		0.19
			(0.08)		(0.13)
City (Chennai is excl.)					
Delhi		0.06	0.05	0.07	0.06
		(0.05)	(0.05)	(0.08)	(0.08)
Mumbai		0.05	0.06	0.09	0.09
		(0.05)	(0.05)	(0.09)	(0.09)
Sector (Finance is excl.)					
Call center/BPO jobs		0.03	0.02	0.11	0.11
		(0.04)	(0.04)	(0.07)	(0.07)
Constant	0.31***	0.26***	0.34***	0.23***	0.28***
	(0.04)	(0.05)	(0.06)	(0.08)	(0.10)
P-values:					
Mother = - Mother x Naga			0.09		0.40
Mother = - Mother x Khasi			0.61		0.94
N	687	687	687	270	270
Prior job experience		No		Yes	

Note: Linear probability model. Standard errors in brackets below point estimates are clustered at the job posting level (229 jobs in columns 1-3; 90 jobs in columns 4 and 5). Significance levels are denoted *p<0.1, **p<0.05, ***p<0.01.

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Table 3: Pooled sample (experienced and inexperienced) – Heterogeneity by sector

Dep. var. Callback	(1)	(2)	(3)	(4)	(5)	(6)
Mother	-0.12***	-0.26***	-0.17***	-0.26***	-0.07**	-0.27***
	(0.02)	(0.05)	(0.03)	(0.06)	(0.03)	(0.07)
Naga	-0.06***	-0.15***	-0.01	-0.05	-0.11***	-0.24***
	(0.02)	(0.04)	(0.03)	(0.06)	(0.03)	(0.06)
Khasi	-0.06***	-0.19***	-0.04	-0.11*	-0.09**	-0.26***
	(0.02)	(0.04)	(0.03)	(0.06)	(0.04)	(0.07)
Mother x Naga		0.18***		0.10		0.26**
		(0.07)		(0.09)		(0.10)
Mother x Khasi		0.25***		0.16*		0.34***
		(0.07)		(0.09)		(0.10)
Call center/BPO jobs	0.05	0.05				
	(0.04)	(0.04)				
Inexperienced	-0.02	-0.02	-0.06	-0.06	0.02	0.02
	(0.04)	(0.04)	(0.06)	(0.06)	(0.06)	(0.05)
Constant	0.26***	0.34***	0.36***	0.40***	0.22***	0.34***
	(0.05)	(0.06)	(0.07)	(0.08)	(0.06)	(0.08)
P-values:						
Mother = - Mother x Naga		0.07		0.02		0.81
Mother = - Mother x Khasi		0.70		0.14		0.26
Sample		Full		Call Center/BPO		Finance
N		957		495		462

Note: Linear probability model. City dummies not shown. Finance/Banking and Bengali are excluded categories in columns 1 and 2. Standard errors in brackets below point estimates are clustered at the job posting level (319 jobs in column 1 and 2; 165 jobs in columns 3 and 4; 154 jobs in columns 5 and 6). Significance levels are denoted *p<0.1, **p<0.05, ***p<0.01.

Table 4: Pooled sample (experienced and inexperienced) – Heterogeneity by city

Dep. Var. Callback	(1)	(2)	(3)	(4)	(5)	(6)
Mother	-0.20***	-0.40***	-0.12***	-0.20**	-0.05	-0.19**
	(0.05)	(0.07)	(0.04)	(0.09)	(0.03)	(0.08)
Naga	-0.05	-0.15*	-0.07*	-0.11	-0.06*	-0.18**
	(0.04)	(0.08)	(0.04)	(0.08)	(0.03)	(0.07)
Khasi	-0.00	-0.18**	-0.06	-0.15*	-0.12***	-0.20***
	(0.04)	(0.08)	(0.04)	(0.08)	(0.04)	(0.07)
Mother x Naga		0.23**		0.07		0.23**
		(0.11)		(0.14)		(0.11)
Mother x Khasi		0.37***		0.17		0.18*
		(0.12)		(0.12)		(0.11)
Call center/BPO	0.01	0.02	0.07	0.07	0.08	0.06
	(0.07)	(0.06)	(0.07)	(0.07)	(0.06)	(0.06)
Inexperienced	-0.01	-0.02	-0.04	-0.04	-0.01	-0.01
	(0.07)	(0.07)	(0.08)	(0.08)	(0.07)	(0.07)
Constant	0.36***	0.44***	0.33***	0.38***	0.22***	0.30***
	(0.08)	(0.08)	(0.08)	(0.10)	(0.07)	(0.09)
P-values:						
Mother = - Mother x Naga		0.04		0.13		0.57
Mother = - Mother x Khasi		0.75		0.71		0.96
City Sample	Delhi		Mumbai		Chennai	
N	318		321		318	

Note: Linear probability model. Finance/Banking is an excluded categories. Standard errors in brackets below point estimates are clustered at the job posting level (106 jobs in columns 1 and 2; 107 jobs in columns 3 and 4; 106 jobs in columns 5 and 6). Significance levels are denoted *p<0.1, **p<0.05, ***p<0.01.