The Legacy of Social Exclusion
A Correspondence Study of Job Discrimination in India

This article examines the prevalence of discrimination in the job application process of private sector enterprises in India. The study is based on a field experiment where authors replied to job advertisements in major English dailies sending three applications to each call – as an upper caste Hindu applicant, as a dalit and as a Muslim. Using statistical analysis they assess the data and find that discriminatory processes operate even at the first stage of the application process.

SUKHADEO THORAT, PAULvette

Current patterns of socio-economic inequality within nations are often intertwined with much older systems of stratification. In the United States, many descendants of enslaved Africans continue to face social and economic disadvantages. In Europe, the Roma and other semi-nomadic groups that pre-date modern nation states find themselves distrusted and socially excluded. In modern Japan and in South Korea, the descendants of certain families who historically held “unclean” occupations remain a stigmatised group. In India and neighbouring countries, ancient systems of caste inequality endure; their modern manifestations severely constrict the lives and opportunities of lower caste citizens.

In most of these nations, groups at the bottom of the stratification order have either won or have been granted rights of equal citizenship. Nowadays, modern constitutions and legal codes outlaw the more violent or oppressive forms of social exclusion. In some countries, lawmakers have gone further to offer group-specific rights and privileges intended to redress past wrongs [Darity and Deshpande 2003].

Ironically, the existence of these rights and protections leads many persons in the social mainstream – those not from a stigmatised group – to conclude that discrimination is a thing of the past [Pager 2007]. The fact that certain social groups remain disproportionately poor, despite these legal safeguards, is often attributed to the group’s low levels of education, or to their concentration in economically backward sectors. When continuing discrimination is acknowledged, it is frequently viewed as a fading survival from the past, an aberration that is antithetical to a modern capitalist economy. Consequently, advocates for stigmatised groups face an uphill battle in persuading their fellow citizens that discrimination remains a powerful ongoing force that explains the persistence of inequality even in modern sectors of society [Thorat et al 2005].

Field experiments provide a useful tool for determining the extent of present-day discrimination [Fix et al 1993; Massey and Lundy 2001; Bertrand and Mullainathan 2004; Pager 2003; Blank et al 2004; Quillian 2006]. In this paper, we apply one of these methods – a correspondence study of job applicants – to college-educated members from the lowest caste within India (dalits or former-untouchables) and upon similarly college educated individuals from the Muslim religious minority in India.

We study what happens when highly educated Indians from different castes and religious backgrounds apply for jobs in the modern urban private sector, encompassing multinational corporations as well as prominent Indian companies. This is that part of the Indian economy where supposedly caste and communal discrimination are things of the past. Yet our findings document a pattern of decision-making by private sector employers that repeatedly advantages job applicants from Hindu higher caste backgrounds and disadvantages low-caste and Muslim job applicants with equal qualifications.

Previous Research and Theory

Caste and Communal Exclusion in India

There is a large amount of scholarly literature about caste (‘jati’) in India that spans disciplines ranging from history to sociology, and from anthropology to economics. There are spirited debates about whether caste is an ancient Indian institution, or largely an outgrowth of colonial rule; whether caste is primarily a religious and ritual phenomenon, or it has important economic functions or causes; whether it is a hold-over that is in decline in today’s India, or is a meaningful feature of present-day social structure; whether castes are ordered hierarchically or are mainly horizontal groupings; whether caste is best conceptualised as a kind of familialism, or a pseudo-ethnicity, or an occupationally-based grouping, or a system of patronage [Overviews of this larger literature include Bayly 1999; Deshpande 2005; Dudley-Jenkins 2003; Mendelsohn and Vicziany 1998; Searle-Chatterjee and Sharma 1994; Srinivas 1996; Sharma 1999].

This paper focuses upon the relationship between caste (and being a member of a minority religion) and labour market discrimination in today’s urban India. Akerlof (1984) and others have developed theories to explain why an economically irrational phenomenon such as caste discrimination might persist in a modern economy [cf Scoville 1991, 1996; Deshpande 2005]. Johdka (2002) and colleagues have shown that multiple identities (caste, religion, migrant status, gender) together affect patterns of employment and exclusion in Indian cities. Darity and Deshpande (2003) have drawn parallels between dalits and disadvantaged groups in other countries. Thorat (2004) provides a compilation of data from Indian government surveys,
contrasting dalits with higher caste Hindus on indicators such as earnings, unemployment, education and health. Thorat and Umake Kant (2004) compile articles that debate caste and discrimination against dalits, in the context of the United Nation’s world conference against racism in Durban.

Prior research relies on four kinds of data: (a) descriptive statistics from surveys of the standing of dalits relative to other groups in India on social indicators; (b) government accounting of “atrocities” against dalits. The term encompasses a variety of discriminatory behaviours penalised by Indian law that range from harassment to violence; (c) Qualitative fieldwork and community studies; (d) media descriptions of incidents against dalits. There is similar material regarding discriminatory treatment of Indian Muslims [Perry 2003].

However, previous research has certain limitations. The qualitative studies often highlight caste oppression in rural contexts, strengthening the impression that caste inequality is a survival in traditional parts of India. Much of the quantitative evidence is not multivariate, thus there are few studies that separate human capital differences from job and wage discrimination. Important exceptions are Banerji and Knight (1985); Lacksmanamy and Mahdeswaran (1995); and Mahdeswaran (2004), which rely on data from 1981 or earlier. Other scholars have suggested that discrimination may be present in manual or operative jobs, but not in white-collar and professional positions. The correspondence methodology used in this paper avoids some of these difficulties because it collects data on discriminatory outcomes occurring in the present among educated, highly qualified applicants to modern sector private companies.

Hiring, Favouritism and Social Exclusion

The German sociologist, Max Weber, provided a perspective on social stratification that emphasised the enduring importance of status groups within capitalist societies: communities that enjoy different amounts of social honour. Status groups may encompass racial, ethnic, or religious groups but can also involve social strata such as “the educated classes”, or castes. Communities that constitute status groups share a certain style of life and maintain their solidarity through shared tastes and social activities on the one hand, and through social closure on the other, reducing their intercourse with social inferiors [Weber 1968].

One important element in Weber’s theory is that status groups seek to monopolise valued economic opportunities. Collins (1979) has shown in detail how, in the US, educational credentialism allows status groups to claim that lucrative occupations require certain degrees, thus limiting competition for privileged positions. Certain jobs come to resemble sinecures and social monopolies; their high earnings reflect the kinds of people who occupy them, rather than objective skills. Residential segregation of status groups by education and income, along with differences in child-rearing practices and in familial cultural capital, produces differential access to superior schooling opportunities and to elite universities, reproducing these status group inequalities across the generations [Domina 2006; Lareau 2003; Massey and Denton 1993].

People who hold privileged positions within large organisations develop a sense that a certain kind of person is especially effective in their role, leading many managers to favour potential recruits who are socially similar to themselves, a process that Kanter (1977) has termed “homosocial reproduction”. Conversely, employers hold stereotypes about certain out-groups as being unsuitable for employment [Holzer 1999; Kirschenmann and Neckerman 1991]. One corollary is that a person’s social networks prove important for finding jobs in the US, both at the professional end [Granovetter 1974] and at the blue-collar end [Royster 2003] of the labour market, because social networks often run along status group lines, sponsoring people who are “like us” [Elliott 2001; Smith 2003].

This sociological view of stratification and employment opportunity is paralleled by an extensive social psychological literature about the cognitive processes of prejudice and stereotyping that underlie both in-group preferences and social exclusion [see Fiske 1998, and Massey 2007 for overviews.] An additional body of research charts the consequences of social exclusion for those groups at the bottom of the status order [Hills, Le Grand, Pichaud 2002].

Taken as a whole, this literature implies that social favouritism in hiring is not a matter of unfair individuals, but rather a consequence of widespread in-group out-group dynamics. Favouritism only recedes when bureaucratic practices limit the discretion of those who hire. A reliance on exams or tests, reporting to superiors about applicant pools and hiring outcomes, and formalised collective decision-making, enhance universalistic hiring [Moss and Tilly 2001]. Sans these mechanisms to ensure fairness, favouritism and discrimination are likely to proliferate.

Methods and Data

Beginning in October 2005 and continuing up to the present, we collected advertisements announcing job openings from several national and regional English language newspapers, including the Times of India (New Delhi and Mumbai editions), the Hindustan Times, The Hindu (Mumbai, Delhi and Chennai editions), the Deccan Herald (Bangalore) and the Deccan Chronicle (Hyderabad).

From these, advertisements for openings in private sector firms were selected. We deliberately excluded public enterprises from this study. We also avoided advertisements for positions that were highly specialised or that required many years of on-the-job experience. Our aim was to select jobs that a university graduate might be eligible for within the first few years after graduation: entry-level or near entry-level positions.

The companies whose advertisements we responded to included securities and investment companies; pharmaceuticals and medical sales; computer sales, support, and IT services; manufacturing of many kinds; accounting firms; automobile sales and financing; marketing and mass media; veterinary and agricultural sales; construction; and banking.

The correspondence methodology we adopted involved submitting by mail several applications to each job advertisement. (All our applicants were young men; the issue of gender discrimination in Indian labour markets was beyond the scope of our study.)

The research staff prepared sets of three matched application letters and résumés (in English) for each type of job. These applications had identical educational qualifications and experience. All the résumés and cover letters presented strong applicants for the job opening: they had suitable degrees from reputable universities, and (where indicated in the advert)
appropriate job experience and skills. This was done to maximise the likelihood that an applicant would be contacted by the employer to proceed to the next stage of hiring, typically the interview stage.

For each advertised job, the matched applications differed only in terms of the name of each male applicant. No explicit mention of caste or religious background was made in any application. However, in each matched set, one application was for a person who had a stereotypically high caste Hindu family name. A second was for a job applicant with an identifiably Muslim name. A third applicant had a distinctively dalit (low caste) name.

A record was kept for each job advertisement applied to. Over the course of the study, we sent at most two sets of applications to any particular employer: one set in response to an advert from that employer for a higher-credential (masters degree) job, and one set for an advert from the same employer for a lower-credential (bachelors degree) job. Thereafter we ignored any additional job advertisements we encountered from that employer.

Each application listed a home address and a cell phone number where the employer could contact the applicant. Employers usually made contact by phone. Research staff answered and recorded employers’ replies to the job applications. The most common answer to an application was no response whatsoever. Rejection letters were rare: only 17 applications (one-third of 1 percent) resulted in rejection letters. In other cases, those we classified as positive outcomes, employers either phoned or wrote to certain applicants asking to interview the person (or in some cases requesting the applicant appear for a written test). There were 450 positive outcomes of this type (9.4 percent of all experimental applications).

We reiterate that a successful outcome as defined in this study involves simply being admitted to the second stage of the job selection process: being contacted for an interview or for testing. The type of discrimination being assessed is whether some kinds of college-educated applicants are disproportionately successful, and others disproportionately unsuccessful, at this earliest stage in seeking employment.

On those occasions when employers did contact an applicant to schedule an interview, the applicant always declined the interview, saying that he had already found another job. Thus we sought no data on the ultimate decision of who was offered the job.

The core of the correspondence method involved three identically-qualified applications for the same job: one a dalit, one a high caste Hindu, and one a Muslim. However, we added one “discordant” application to these three. For jobs that requested a higher degree, we sent in one additional application from a person with a high caste name who only had a bachelor’s degree. In other words, this discordant applicant was an academically under-qualified person but from a socially high-ranking group. For jobs that demanded BA degrees, we added a different kind of discordant application, from a person with a dalit name who had a master’s degree. In other words, this second type of discordant applicant was overqualified in academic terms, but had a socially lower status. The purpose of these two kinds of discordant applicants was to act as yardsticks, to determine whether, in the application process, the effect of caste might outweigh or overcome that of academic qualifications or vice versa.

Throughout the study we submitted job applications to employers in sets of four: three identically qualified plus one discordant applicant. When the research began, we sent one group of four applications to each job advertisement. However, after we discovered that positive responses were relatively rare, we shifted to submitting three sets of four applications to each job advertisement: 12 applicants per opening. The current paper presents analyses of applications sent out over the course of 66 weeks, starting in October 2005.

Findings

Table 1 provides simple descriptive statistics for the job applications. A total of 4808 applications were made to 548 job advertisements over 66 weeks.

Our main analytical goal was to determine whether the likelihood of receiving a positive response from an employer differed according to whether the application was made by someone with a high caste, a Muslim or a dalit name. Since applications were clustered within jobs, multi-level or hierarchical models are appropriate. Since outcomes were dichotomous (either a positive response or not) we employed a random effects logistic regression model. In this kind of model, there is a random effect of the particular job on the likelihood of receiving a positive outcome. The effects of caste and religion are represented in the model by two dummy variables Muslim and dalit, with high caste Hindu as the reference category. Two additional dummy variable predictors are included in the model: one indicates whether the applicant was underqualified (the anomalous high caste person with a BA applying for an MA position) and the last dummy variable indicates whether the applicant was over-qualified (a dalit with an MA applying to a lower-level job).

This model may be written:

\[
\log \left( \frac{p_{it}}{1 - p_{it}} \right) = \beta_0 + \beta_1 \text{Disc} + \beta_2 \text{Religion} + \beta_3 \text{Underqualified} + \beta_4 \text{Overqualified} + \beta_5 \text{High caste} + \beta_6 \text{Dalit} + \epsilon_{it}
\]

where $\text{Disc}$ is a dummy variable for an appropriately-qualified dalit applicant, and $\text{Religion}$ is a dummy variable for an appropriately-qualified Muslim applicant, $\text{Underqualified}$ is a dummy variable for an over-qualified dalit applicant and $\text{Overqualified}$ is a dummy variable for an under-qualified High caste applicant. The subscript $i$ refers to the job applied for ($i=1, ..., 548$), such that $\text{Disc}$ is a random effect for each job. The job effect $\epsilon_{it}$ implies a correlation among applications to the same job and reduces the standard errors.

The results are reported in Table 2. The logistical regression model (on the left) was estimated using STATA’s xlogit procedure with a random effect for job. This procedure fits the data and calculates estimates using an adaptive Gauss-Hermite quadrature algorithm [STATA Corp 2005: 161-69]. The effects are reported as odds ratios. Table 2 provides two different significance levels for each predictor in this model. The first is the default method in STATA and assumes clustering. The second

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muslim</td>
<td>4808</td>
<td>0.25</td>
<td>0.43</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Dalit</td>
<td>4808</td>
<td>0.25</td>
<td>0.43</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>High caste</td>
<td>4808</td>
<td>0.25</td>
<td>0.43</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Overqualified</td>
<td>4808</td>
<td>0.13</td>
<td>0.33</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Underqualified</td>
<td>4808</td>
<td>0.12</td>
<td>0.33</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Outcome</td>
<td>4808</td>
<td>0.09</td>
<td>0.29</td>
<td>0.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>
used a jackknife method involving 250 replications, and calculated the standard error from this distribution.

As Table 2 indicates, there are statistically significant effects of both caste and religion on job outcome. Appropriately-qualified applicants with a dalit name had odds of a positive outcome that were 0.67 of the odds of an equivalently qualified applicant with a high caste Hindu name. Similarly-qualified applicants with a Muslim name had odds of 0.33 of an otherwise equivalent applicant with a high caste name.

A second model (on the right in Table 2) was estimated using the program HLM6 [Raudenbusch et al 2004]. It reports a two-level hierarchical non-linear Bernoulli model, with applications nested within jobs, fitted using a Penalised Quasi-Likelihood estimator. The coefficients are reported for the level-1 effects in a unit-specific model with robust Huber-White standard errors that correct for heteroskedasticity. The estimated effects are quite close to those from the random effects logistic regression in the previous model. For a positive job outcome, dalits had an odds ratio outcome 0.68 that of an otherwise equivalent high caste applicant. Muslims had an odds ratio of 0.35 compared to a high caste applicant. Both coefficients were statistically significant.

In sum, both models yielded consistent findings that job applicants with a dalit or Muslim name were on average significantly less likely to have a positive application outcome than equivalently-qualified persons with a high caste Hindu name.

The two “discordant” application types provide additional insights into the likelihood of gaining a positive job outcome. The odds of a positive outcome for an under-qualified high caste applicant applying for a higher-level job were statistically significantly lower than the odds for a high caste applicant with an appropriate qualification (an odds ratio of .57). The odds of success for an under-qualified high caste applicant were not significantly different from the odds of success for an appropriately qualified dalit. Having a high-caste name considerably improves a job applicant’s chances of a positive outcome, but if a high caste applicant lacks the requested credential, his chances of success are considerably reduced.

The odds of a positive outcome for an over-qualified dalit applicant (a dalit with an MA applying for jobs that required only a BA) were larger than the odds for a qualified dalit but were smaller than the odds ratio for a BA qualified High caste applicant. Although the effects were substantial in size, neither of these differences in odds was statistically significant, probably due to insufficient statistical power. This leaves us unable to draw any firm conclusions about the relative importance of qualifications versus caste in this specific context.

**Discussion**

This field experiment study of job applications observed a statistically significant pattern by which, on average, college-educated lower-caste and Muslim job applicants fare less well than equivalently-qualified applicants with high caste names, when applying by mail for employment in the modern private-enterprise sector. The only aspect of family background that was communicated in these applications was the applicant’s name, yet this was enough to generate a different pattern of responses to applications from Muslims and dalits, compared to high caste Hindu names. These were all highly-educated and appropriately qualified applicants attempting to enter the modern private sector, yet even in this sector, caste and religion proved influential in determining ones job choices.

These discriminatory outcomes occurred at the very first stage of the process that Indian university graduates go through to apply for a job. We did not collect data on who was ultimately hired for these particular jobs. Nor is it possible to determine the employment composition of private sector enterprises in India, because corporations are not obliged to report the caste and religious composition of their workforces to the government. (By contrast, US law requires companies of a certain size to report the gender and racial composition of their workforces to the federal government, and these data are monitored by the Federal Equal Employment Opportunity Commission).

We speculate that if caste and communal discrimination are evident even at this early phase of the application process in India, then final hiring decisions are unlikely to be equitable. In a separate study, our colleagues are collecting accounts of job interviews and hiring experiences from both high- and low-caste job applicants that suggest that caste-biases also affect later stages of the hiring process. Those data will be the subject of a separate paper.

Our study examined one route by which Indian job seekers apply for jobs. In addition to applications to newspaper advertisements, some university graduates are employed through a process of on-campus job interviews held at the more prestigious universities towards the end of the final year at university. These are known as “hiring cells”. This second method of hiring will be studied in a related project.

Our findings suggest that social exclusion is not just a residue of the past clinging to the margins of the Indian economy, nor is it limited to people of little education. On the contrary, it appears that caste favouritism and the social exclusion of dalits and Muslims have infused private enterprises even in the most dynamic modern sector of the Indian economy.

**Note**

These scholars draw upon economic theories that argue that discriminatory hiring may be economically rational in situations where employers have few ways for evaluating the quality of job applicants. Employers therefore undertake statistical discrimination, using past experiences

**Table 2: Modelling Differences in Job Outcomes**

<table>
<thead>
<tr>
<th></th>
<th>Odds Ratio</th>
<th>SE</th>
<th>p value</th>
<th>Jackknife p value</th>
<th>Odds Ratio</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Predictors:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Compared to high caste)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dalit</td>
<td>.6724</td>
<td>.1202</td>
<td>0.026</td>
<td>.014</td>
<td>.6835</td>
<td>0.013</td>
</tr>
<tr>
<td>Muslim</td>
<td>.3318</td>
<td>.0649</td>
<td>0.000</td>
<td>.000</td>
<td>.3475</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>Underqualified high caste versus:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualified high caste</td>
<td>.5711</td>
<td>.1409</td>
<td>0.023</td>
<td>.033</td>
<td>.6028</td>
<td>0.037</td>
</tr>
<tr>
<td>Qualified dalit</td>
<td>.8493</td>
<td>.2134</td>
<td>0.516</td>
<td>0.538</td>
<td>.8919</td>
<td>0.609</td>
</tr>
<tr>
<td><strong>Overqualified dalit versus:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualified high caste</td>
<td>.7818</td>
<td>.1689</td>
<td>0.255</td>
<td>0.193</td>
<td>.7718</td>
<td>0.146</td>
</tr>
<tr>
<td>Qualified dalit</td>
<td>1.162</td>
<td>.2571</td>
<td>0.495</td>
<td>0.435</td>
<td>1.129</td>
<td>0.503</td>
</tr>
</tbody>
</table>

Email: skthorat@hotmail.com

pattewell@gc.cuny.edu

---

1 These scholars draw upon economic theories that argue that discriminatory hiring may be economically rational in situations where employers have few ways for evaluating the quality of job applicants. Employers therefore undertake statistical discrimination, using past experiences.
with employees from certain groups as a basis for selecting individuals [cf Arrow 1972, 1998]. This approach differs from sociological theories, reviewed below, that emphasise discrimination as an outcome of competition for jobs among status groups.

References


For the Attention of Subscribers and Subscription Agencies Outside India

It has come to our notice that a large number of subscriptions to the EPW from outside the country together with the subscription payments sent to supposed subscription agents in India have not been forwarded to us. We wish to point out to subscribers and subscription agencies outside India that all foreign subscriptions, together with the appropriate remittances, must be forwarded to us and not to unauthorised third parties in India. We take no responsibility whatsoever in respect of subscriptions not registered with us.