

Job Discrimination, Earning Inequality and Policy Action: An Empirical Study with Indian Data

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The basic focus of this study is on unethical part of inequality in the job market and how it is responsible for persistence of earning inequality despite some affirmative actions like reservation policy for the vulnerable social groups. The study explores job discrimination in Indian labour market and its implications in explaining earning inequality and significance of government policy. We measure job discrimination among young age people in India who are in wage employment. Discrimination is considered as a situation where equally endowed individuals have not the equal chance to get equitable jobs in the labour market. The concept of discrimination used in this study is closely related to inequality of opportunity or unfair inequality popularised by John Roemer (1998) and extended further by Fleurbaey (2008). Discrimination of different dimensions is ethically objectionable and a serious cause of concern from the point of view of social justice and equity, and a large number of theoretical and empirical contributions on this issue have exploded in the last couple of decades.

Historically, the Indian society is segregated by different social groups in terms of castes, religions and ethnic identities with heterogeneous characters, and substantial economic differences have been observed across castes, religion, and ethnic groups despite several affirmative measures have been adopted by the Government of India (Das (2019, 2013), Deshpande (2001), Government of India (2006), Desai and Kulkarni (2008), Sengupta and Das (2014)). The objective of this study is to find out how job discrimination is responsible for the observed economic gaps between different social groups. In estimating job discrimination and earning inequality, this study uses household and personal level information from employment and unemployment survey and periodic labour force survey in India. The survey data provides different types of employment by activity status

across different skill level by occupation status. We have utilized personal characteristics like gender, education and work experience, and household specific characteristics like social groups and religion in empirical exercise.

In measuring discrimination, we use ex-ante approach of inequality of opportunity in which there is equality of opportunity in employment and earning if all individuals face the same set of opportunities regardless of their circumstances. In this approach, inequality of the counterfactual distribution $\tilde{Y}_k = (\tilde{y}_i^{k,j} = y_i^{k,j} \frac{\mu}{\mu_j})$ is the inequality of opportunity, $y_i^{k,j}$ is outcome of individual i in type k and tranche j , μ_j and μ denote the average outcomes.

Estimation of job discrimination is a challenging work because job type is a qualitative variable. The outcome variable, job quality, is constructed as binary (1 for good quality job and 0 for others). Inequality index or discrimination index of a qualitative variable does not follow directly the Pigou-Dalton transfer principle. For this reason, we have used probit link function which transforms the binary dependent variable into a continuous variable within the range $(-\infty, \infty)$ that could be used to check the validity of Pigou-Dalton transfer principle for robustness of the discrimination index estimated in this study.

By following the methodology developed in Ferreira and Gignoux (2014), we first estimate the binary response model by using probit link function for the whole sample of young age people. Then we calculate the dissimilarity index by using the conditional probability. The index obtained in this method follows the property of scale invariance.

We have used the reduced form of employment equation:

$$y_i^* = C_i' \theta + v_i \quad (1)$$

As job quality (y_i^*) is a latent variable which is not observed properly, we define a binary variable (y_i) on the basis of job conditions which are observed in the data:

$$y_i = \begin{cases} 1, & \text{for } y_i^* > 0 \\ 0, & \text{elsewhere} \end{cases}$$

If a person works in regular paid jobs with high occupational status for longer period, then job quality is defined to be good and $y_i^* > 0$. In the dataset used in this study, regular paid jobs are identified by principal activity status, high occupation status is defined by national classification of occupation (NCO) at one digit level, longer period of job is defined in terms of job contract for more than 3 years. The model used in this study uses female dummy, the caste dummies for STs, SCs and OBCs, and religion dummies for Hindus, Muslims and Buddhists as explanatory variables to find out the differential effects of gender, caste and religion on employment. After estimating the probit regression, we compute the predicted values to get the counterfactual distribution.

$$\tilde{Y}_{EA} = C_i' \hat{\theta}$$

For binary variables, the actual outcome is dichotomous, while the conditional outcome (probability) is continuous. Theil's T index of the counterfactual distribution provides a point estimate of discrimination index of employment.

To understand the relative contribution of gender, caste and religion to discrimination, total discrimination is decomposed by using the Shapley decomposition method. The decomposition analysis is important given the historical division of Indian society into different caste and religious groups, with some groups enjoying better opportunities than the others just because of their social inheritance.

The point estimates of Van de Gaer index suggest that about one fifth of employment gap appeared in Indian job market because of discrimination and the extent of discrimination in getting job increased during the period between 2004-05 and 2019-20. A significant regional difference is observed in job discrimination showing the highest value in the Northern states of Bihar and Uttar Pradesh, and lower value in Southern region states like Tamil Nadu and Andhra Pradesh during 2019-20. Shapley decomposition of Van de Gaer index highlights that the major part (more than 60 per cent) of job discrimination is attributed to caste difference among workers; around 20 per cent is contributed by religious differences and less than 20 per cent because of gender differences. After opening up the Indian economy for global competition, job types have been diversified primarily through the expansion of private sector where job reservation norms are not effective at all, and many people in the vulnerable social groups fail to get good quality job in the private sector

because they were discriminated in getting quality education to acquire necessary skill. Skill biased technological progress mainly in the private sector increases caste based discrimination in getting good quality job.