Vani Kant Borooah

Disparity and Discrimination in Labour Market Outcomes In India

A Quantitative Analysis of Inequalities

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ISBN 978-3-030-16263-4 ISBN 978-3-030-16264-1 (eBook)
https://doi.org/10.1007/978-3-030-16264-1

This Palgrave Macmillan imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

For Ivor Nash Borooah, with love

Preface

The theme of this book is labour market outcomes in India, in particular, differences in outcomes between men and women and between persons belonging to its caste and religious groups. The outcomes that are studied are the risk of not being able to find a job, the likelihood of finding a "good" job, the likelihood of finding work in desirable occupations, the likelihood of finding permanent jobs, and, lastly, the wages from employment.

Consistent with my *métier* as an academic economist, the book's tenor is analytical and based upon a rigorous examination of data. These data are from two sources: the National Sample Surveys carried out under the aegis of the Government of India's Ministry of Statistics and the Indian Human Development Survey conducted jointly by the National Council of Applied Economic Research and the University of Maryland.

In writing this book, I am grateful to three anonymous reviewers for comments and suggestions that substantially improved the original proposal and to Paula Bownas whose careful reading of the first draft winkled out numerous inconsistencies in the presentation and suggested several ways in which my writing might be improved: the book has greatly benefited from her editorial oversight. Thanks are also due to my publisher, Palgrave Macmillan—in particular, to Rachel Sangster, who encouraged me to write this book, and to Joseph Johnson, who supported me in

doing so. Notwithstanding these debts, I remain solely responsible for the book's contents: for the analysis reported in it, for the views expressed therein, and, indeed, for all its shortcomings.

Belfast, UK
January 2019

Vani Kant Borooah

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The Labour Market in India

1.1 Prologue

This is a book about inequality in labour market outcomes in India. Inequality is studied in terms of differences in outcomes among persons aged 21–60 years belonging to a variety of social groups—the groups considered in this book are Scheduled Tribes (ST), Scheduled Castes (SC), non-Muslim Other Backward Classes (OBC-NM), Muslims, and the Forward Castes (FC)[1]—and between men and women. The outcomes that are studied are as follows: (i) the risk of not being able to find a job; (ii) the likelihood of finding a "good" job in terms a regular, salaried wage job as opposed to a "bad" job as a casual wage labourer; (iii) the likelihood of finding work in desirable occupations (professional and executive, clerical) as opposed to undesirable occupations (agricultural labourers or construction); (iv) the likelihood of finding permanent jobs as opposed to casual jobs; and (v) wages from employment.

For each of these outcomes the book points to inter-group *disparity* in the proportions of their members that meet with labour market "success".

[1] Where Forward Castes include Christians, Sikhs, and Jains who are not from the ST/SC/OBC-NM.

V. K. Borooah, *Disparity and Discrimination in Labour Market Outcomes in India*,
https://doi.org/10.1007/978-3-030-16264-1_1

There is no doubt that, on the face of it, high success rates are a prerogative of persons from the FC while Muslims and persons from the ST, SC, and (to a lesser extent) the OBC-NM have to content themselves with lower rates. The moot point, however, is the degree of inter-group disparity in success rates that can be explained by differences between the groups in the attributes that make for success (*attributes effect*) and how much can be explained by bias which leads employers to treat persons from the different groups differently—acting in favour of some and against others—even though these persons do not differ in terms of attributes. This is the *discrimination effect*. Differences between the groups in their average likelihood of labour market success can then be expressed as the sum of the attributes effect (i.e. differences in attributes between the groups) and the discrimination effect (i.e. differences in the treatment of equals from the various groups). The *raison d'être* of this book is to evaluate the observed inter-group disparity in the labour market outcomes listed above in terms of the respective contributions of the attributes and discrimination effects.

This evaluation, which is the product of the author's original research, is conducted on the basis of two sets of data. The first relates to unit record data from the latest available round (68th round: July 2011–June 2012), and the round pertaining to a decade earlier (55th round: July 1999–June 2000), of the National Sample Survey (NSS) of Employment and Unemployment. The NSS employment data give the distribution of its respondents—who are distinguished by various characteristics, including their caste, religion, and educational standard—between different categories of economic status. Of these categories, the three which are the most important are *self-employed*, *regular salaried or wage employees,* and *casual wage labourers*. The second relates to unit record data from the Indian Human Development Survey relating to the period 2011–12. This Survey provided details about the occupations, the security of job tenure, and wages of individuals drawn from over 42,152 households in 384 districts, 1420 villages and 1042 urban neighbourhoods across India. The next four sections of this chapter outline the salient features of the labour market in India, while the concluding section sets out in some detail the plan of the book.

1.2 Introduction

In 1951, 72% of India's workforce of 140 million[2] was employed in agriculture: the percentages in industry (mining, manufacturing, construction, and utilities like gas, water, electricity) and the service sector—at, respectively, 11% and 17% of the total workforce—were relatively small. In turn, the concentration of employment in agriculture was reflected in the fact that, in 1951, agriculture contributed 51% to India's gross domestic product (GDP), with industry and services contributing, respectively, 19% and 30%. By 2012, however, only 47% of India's workforce of 332 million[3] was employed in agriculture, with 25% in industry and 28% in services; the corresponding contributions of agriculture, industry, and services to India's GDP were, respectively, 14%, 27%, and 59%.[4]

The first implication of these changes over India's post-independence period is that there has been a large shift in the workforce from agriculture to industry and services between 1951 and 2012, with more recent data showing these trends continuing: between 2011 and 2015, jobs in agriculture shrank by 26 million while non-farm jobs increased by 33 million. These large shifts, emblematic of significant structural changes in the Indian economy, occurred while the overall number of jobs rose hardly at all: from 456 million in 2011 to 463 million in 2015, an increase of just 7 million jobs in four years.[5]

Another implication of these changes is that productivity in agriculture, relative to overall productivity, has fallen sharply while that of services has risen dramatically. In 1951, agricultural productivity was 70% of overall GDP per worker while industrial and service sector productivities were, respectively, 1.72% and 1.76% of overall GDP per worker. By 2012, agricultural productivity was 28% of overall GDP per worker, while industrial and service sector productivities were, respectively,

[2] Visaria (1967).

[3] Venkatanaryana and Naik (2012).

[4] Dasgupta and Kar (2018).

[5] Woetzel et al. (2017).

1.08% and 2.11% of overall GDP per worker.[6] So, productivity growth in agriculture has lagged behind overall productivity growth, industrial productivity is only slightly ahead, while productivity in services is twice that of overall productivity.

Another noteworthy feature of the Indian labour market is the low participation rate, defined as the proportion of the population aged 15–65 years (the "working-age" population) that is either working or seeking employment. A low participation rate may have several causes: people of working age postpone entering the labour market because they are studying, or they drop out of the labour market because they are discouraged by repeated rejections, or they cannot enter the labour market because they have unpaid caring duties, or they simply exclude themselves from the labour market for socio-cultural reasons. This occurs, for example, when married women devote themselves entirely to household duties. Most notably, the female participation rate, which was within the 34–37% range in the 15-year period up to 2005, began to decline thereafter before stabilising at a rate of 27% in 2012; the male participation rate declined from 83% in 2005 to 79% in 2013 and has since stabilised at that rate (Dasgupta and Kar 2018).

Yet another important feature of the Indian labour market is the nature of the employers and the type of jobs that are offered. Employers are of two types: those in the *organised sector* and those in the *unorganised sector*. The organised sector is defined as comprising the public sector in its entirety (i.e. government administration plus public enterprises) as well as those private sector firms employing ten or more workers. The criterion of ten or more workers was adopted because the National Commission for Enterprises in the Unorganised Sector (NCEUS) argued that this was the minimum number of employees required for an enterprise's workers to be eligible for the job, work, and social security benefits under the various labour-related laws in India (National Commission for Enterprises in the Unorganised Sector 2008, p. 17).[7]

[6] In 1951, agricultural productivity was (0.51/0.72) × (GDP/Employment), while industrial and service sector productivities were, respectively, (0.19/0.11) and (0.30/0.17) × (GDP/Employment). By 2012, these figures were (0.14/0/47) × (GDP/Employment) for agriculture, (0.27/0.25) × (GDP/Employment) for industry, and (0.59/0.28) × (GDP/Employment) for services.

[7] Such as, inter alia, the Industrial Disputes Act, 1947; the Factories Act and the Employees' State Insurance Act, 1948; the Employees' Provident Fund and Misc. Provisions Act, 1952; the Contract Labour (Regulation and Abolition) Act, 1970.

The unorganised sector is defined by NCEUS as comprising "all unincorporated private enterprises owned by individuals or households engaged in the sale or production of goods and services operated on a proprietary or partnership basis and with less than 10 workers" (ibid., p. 2). On this basis, 17% of all employment in India in 2011–12 was in the organised sector and 83% in the unorganised sector, with these percentages representing a slight improvement from the corresponding proportions of 13% and 87% in 2004–05.[8]

In terms of the type of work, a distinction can be made between *formal* and *informal* workers. Informal workers are those working in the unorganised sector or those working in the organised sector but *not receiving* employment and social security benefits provided by employers in this sector. Formal workers are those working in the organised sector and receiving the employment and social security benefits provided by employers in this sector. Of the total number of workers in 2011–12, 8% were formal workers and 92% were informal workers; these proportions were virtually identical to those in 2004–05 when 7% and 93% of all workers were, respectively, formal and informal workers. While all workers in the unorganised sector were informal, 55% of workers in the organised sector in 2011–12 were also informal; this represented an increase since 2004–05 when 48% of workers in the organised sector were informal (Srija and Shirke 2014).

The penultimate feature of the Indian labour market is the existence of labour market regulations which constrain the freedom of employers in the organised sector. The World Bank (2010) estimated that the Industrial Disputes Act (IDA) of 1947, and its subsequent amendments in 1976 and 1984, has led to 2.8 million fewer jobs being created in organised sector manufacturing, which represented about 45% of the total of 6.4 million jobs in this sector in 2008.[9]

The last feature of the Indian labour market is government provision of jobs to the rural poor under the auspices of the National Rural

[8] Srija and Shirke (2014).

[9] In 2017, employment in organised manufacturing was 10.1 million. https://economictimes.indiatimes.com/jobs/countrys-organised-sector-created-4-lakh-jobs-in-2016-17/articleshow/62313543.cms (accessed 22 December 2018).

Employment Guarantee Act (NREGA). This took shape in 2005 under the Congress-led UPA (United Progressive Alliance) government and, in 2015, when the BJP (Bharatiya Janata Party) committed to itself to continuing the scheme, which was the flagship of its erstwhile political opponents. The NREGA guarantees no less than 100 days of unskilled manual work in a year to a single member of every rural household.

In addition to supplementing the incomes of rural households, the purpose of NREGA is to use its workers to build rural infrastructure such as roads, water conservation, and land development. Woetzel et al. (2017) estimate that, between 2015 and 2017, NREGA created an additional 690 million person-days of work, which, on the assumption that a person working full time did 300 days in a year, was equivalent to 2.3 million additional jobs. While many of these jobs might not be *new* jobs—for example, agricultural wage labourers might supplement their income by working on NREGA construction projects—it yielded *additional* income to rural households.

1.3 Jobless Growth

India's economy grew at an annual rate of 5.6% between 2011 and 2013 and at an annual rate of 6.9% between 2013 and 2017, giving an average rate of 6.6% per year over the entire period between 2011 and 2017. Notwithstanding these high rates of growth, the number of jobs, on the latest available figures, increased by only 7 million between 2011 and 2015: from 456 million in 2011 to 463 million in 2015 for an annual growth rate of 0.4%.[10] This mismatch between the impressive rates of economic growth and the paltry rates of employment growth is commonly referred to as "jobless growth".

The slow rate of employment growth has to be juxtaposed against the fact that around 12 million new job-seekers enter the labour force every year while, between 2011 and 2015, less than 2 million jobs were being created annually. Given these figures, the natural expectation would be to

[10] Woetzel et al. (2017). The annual growth rate, g, is obtained by solving the equation $456 \times (1 + g)^4 = 463$.

observe a high (and rising) unemployment rate in India as a large, and increasing, proportion of persons sought, but failed to land in, jobs. This, however, is not so. India's unemployment rate has remained at a steady 4%.

The reason for a low unemployment rate in the face of the number of job-seekers continually exceeding the number of available jobs is that the unorganised sector absorbs the excess by offering low-quality employment doing low-productivity jobs. So, for example, a jobless youth who helps out in a relative's shop, for paltry remuneration, would not be counted as unemployed. The fact that he works for a pittance means, however, that the price of not being formally unemployed is underemployment in a poor-quality "job". So, India undoubtedly has a severe "employment problem", but this problem is reflected not in high unemployment rates but in a preponderance of low-quality jobs in which people either are underemployed or toil long and hard, but always for very low pay. Out of 100 jobs in India—the informal jobs—92 are of this type, and they are to found mainly, though not exclusively, in the unorganised sector.[11]

The importance of raising productivity can be driven home by considering the process of price formation. The most common theory of industrial price formation argues that prices are established as a mark-up on costs.[12] Costs constitute payments for a number of inputs and activities—labour, capital, energy, raw materials—but since labour is usually the most important cost in production, the discussion here focuses on labour costs for ease of exposition.

If p and Q represent, respectively, the price of a product and its quantity, and w and L represent, respectively, the wage rate and the amount of labour used to produce the output, then the price equation can be represented as follows:

$$p = \lambda \times \frac{w \times L}{Q} = \lambda \times \left(w / \pi \right) \tag{1.1}$$

[11] In 2011–12, 90% of informal jobs were in the unorganised sector and 10% were in the organised sector (Srija and Shirke 2014).

[12] See Hall and Hitch (1939).

where λ represents the mark-up on unit costs (i.e. the cost of producing a unit of output) and $\pi = Q/L$ represents productivity (i.e. output per worker). Assuming that the profit margin, λ, remains constant over time, Eq. (1.1) can be expressed in terms of *rates of change* as follows:

$$\dot{p} = \dot{w} - \dot{\pi} \tag{1.2}$$

where $\dot{p}, \dot{w}, \text{and } \dot{\pi}$ are, respectively, the rates of change (per unit of time) in prices, wages, and productivity.[13]

Now suppose in Eq. (1.1), both wages and productivity grew at 5% $\left(\dot{w} = \dot{\pi} = 5\%\right)$. Under this scenario prices would remain unchanged $(\dot{p} = 0)$ and real wages (w/p)—or equivalently, living standards—would rise by 5%. Indeed, growth rates in productivity completely determine the rise in living standards that is possible. Suppose productivity grew at 5% and wages grew at x%; in consequence, prices would change by $(x-5)$%, and this would be positive or negative depending on whether $x > 5$ or $x < 5$. In any event, the growth in real wages, defined as the difference between the growth in (nominal) wages and the growth in prices, $x - (x-5)$, would equal the growth in productivity, 5%. So, the moral of the story is that an increase in a country's living standards can be obtained only by raising productivity, and that productivity increases will entirely determine the achievable rise in its living standards.

In order to engender a rise in living standards which is general over the population, as opposed to being restricted to certain privileged groups, productivity growth needs to proceed in tandem with an expansion of employment. In order for this to happen there has to be another kind of structural change in India's labour market. In the recent past, the structure of the labour market has changed as employment has shifted from farm to non-farm activities: as noted earlier in this chapter, between 2011 and 2015, the number of farm jobs fell by 26 million and was paralleled by a rise of 33 million in the number of non-farm jobs. A large part of this shift was into construction, trade and hospitality, and transport. In part this was engendered by increased government spending on infrastructure—roads, railways, bridges, housing, telecom, power, education,

[13] $\dot{p} = dp/dt, \dot{w} = dw/dt, \text{and } \dot{\pi} = d\pi/dt$.

and health.[14] These sectoral shifts, however, occurred without any significant change in the relative sizes of the organised and unorganised sectors, which, as noted earlier, provided, respectively, 17% and 83% of total employment in 2011–12. In order to boost productivity and employment there needs to be a further structural change involving an expansion of the organised sector and, commensurately, shrinkage of the unorganised sector.

In the context of employment generation, one problem with the organised sector is that the composition of industrial output is skewed towards capital-intensive products (inter alia petroleum, chemicals, cars, engineering products) and away from labour-intensive products (inter alia textiles, leather goods, furniture, bicycles). In a study encompassing 97 industries, Das et al. (2009), after identifying 31 as labour intensive and 66 as capital intensive, showed that the combined share of the 31 labour-intensive industries in gross value added of the organised sector averaged 12.9% between 1990–01 and 2003–04.[15]

Furthermore, even within particular products, Indian firms prefer to use capital-intensive, rather than labour-intensive, techniques of production. From a cross-country analysis of 19 countries for the period 1994–2004, Hasan et al. (2010) found that (i) India used a higher capital/labour ratio in manufacturing than countries at its level of development with similar factor endowments, (ii) India used higher capital/labour ratios in a majority of manufacturing industries compared to China, and (iii) for every three-digit manufacturing industry, India used a higher capital/labour ratio than predicted by its factor endowment.

The third feature of firms in India's organised sector is that they are either very small or very large. Consequently, there is an absence of the medium-sized firms that have driven growth in several countries or, as Mazumdar (2001) puts it, there is the problem of the "missing middle". Although the median employment in firms in the organised sector was 21 workers, a large number of firms in this sector had 10 or fewer work-

[14] See *The Economist*, "Powering Ahead: India's Once Shoddy Transport Is Getting Much Better", 17 July 2017, for details of transport infrastructure spending in India.

[15] The average labour/capital ratio of these 97 industries was 0.26. Industries with a labour/capital ratio greater than 0.26 were considered to be labour intensive, with the others being regarded as capital intensive.

ers, and, even in the 90th percentile, the number of workers was 25 (Hasan and Jandoc 2012). The smallness of firms in India limits their ability to provide good jobs. Generally speaking, workers with jobs in large firms are paid higher wages because they are more productive. In consequence of being more productive, they are also rewarded with generous fringe benefits, get more training, and are provided with a cleaner, safer, and more pleasant work environment (Moore 1911; Idson and Oi 1999; Oi and Idson 1999).

A number of economists have placed the blame for poor employment creation by firms in India on the straitjacket of India's labour laws.[16] Bhagwati and Panagariya (2013) estimated that there were about 200 labour laws in force in India, of which 50 were central government and—since labour is a concurrent subject on which states can also legislate—200 were state government laws. Perhaps the most invidious of these is the 1947 Industrial Disputes Act (IDA) and its subsequent amendments.

The main culprits are two clauses of the Industrial Disputes Act: the "Disputes" and "Retrenchment" clauses. The Disputes clause creates incentives for settling disputes through adjudication rather than through reconciliation and has overloaded the industrial disputes resolution system. Under the aegis of the Industrial Disputes Act 1947, labour courts in India adjudicate on worker–employer disputes relating to wages, allowances, dismissals, bonuses, injuries, accidents, and discrimination. In February 2018, a total of 8142 cases were pending before labour courts in Mumbai, of which 122 (15%) had been pending for over ten years and 2936 (36%) had been pending for between five and ten years.[17]

The Retrenchment clause requires units employing more than 100 workers to obtain government authorisation (Chap. Vb of the IDA) for retrenchment and layoffs of employees, though, in practice, such authorisation is rarely granted (World Bank 2010). Furthermore, the Act also requires firms with 50 or more workers to give three weeks' notice to their workers of any change in their working conditions, which may include disciplinary rules, technological changes, grade classification, or shift

[16] World Bank (2010), Bhagwati and Panagariya (2013), and Joshi (2016).

[17] https://indianexpress.com/article/cities/mumbai/8142-cases-pending-in-mumbai-labour-courts-5050589/ (accessed 22 December 2018).

work. In the face of worker opposition, any of these changes could trigger an industrial dispute.

Furthermore, any firm employing 100 or more workers cannot terminate its operations without government authorisation, and unless such permission is given, which it rarely is, the owner has to effectively continue paying workers.[18] The consequence of such "employment protection" laws which severely constrain the ability of employers to fire formal workers is to simultaneously offer strong disincentives to hire such workers.[19] Vacancies are filled using contract, rather than permanent, workers (Sapkal 2016), although even here government clips industry's wings by requiring that contract workers should not be used for the work of a "perennial" nature or for "core" jobs.[20]

Hasan and Jandoc (2012) detail the different ways that labour regulations can influence firm behaviour. First, they can increase the cost of hiring workers through imposing minimum wages and provisions for mandated benefits (such as health care and pension benefits).[21] Second, they can affect the speed and cost of adjusting employment levels through regulations about hiring and layoffs and changes to conditions of service for incumbent workers.[22] Third, labour regulations can influence the relative bargaining power of workers and firms by regulating the conditions under which industrial disputes arise and are settled.

Since the stringency of these regulations depends upon the size of firms, falling disproportionately on larger firms, it is likely that they have an impact on the size distribution of firms. Furthermore, since labour is a concurrent subject on which both the central government and the state governments can legislate, the severity of labour laws varies by state. Hasan and Jandoc (ibid.) show that, for labour-intensive industries, states with flexible labour regulations have larger employment shares in larger-

[18] This sometimes leads to the phenomenon of "sick" firms which, after at least five years of existence, had incurred accumulated losses equal to or exceeding their entire net worth at the end of any financial year.

[19] See Bhagwati and Panagariya (2013, Chap. 8) for a detailed exposition of the pernicious effects of labour laws in India.

[20] The 1970 Contract Labour (Regulation and Abolition) Act.

[21] The 1948 Minimum Wages Act; the 1948 Employees' State Insurance Act; and the 1952 Employees' Provident Fund and Miscellaneous Provisions Act.

[22] The 1947 Industrial Disputes Act.