Exploring Dimensions and Exposing Perceptional Biases Pertaining to Human Capital Base in the Indian Labour Markets

Preet Rustagi[*]

Abstract

This paper explores the varied dimensions of human capital elements in the context of Indian labour markets, which are quite distinct from the standard, conventional notions derived from theories based on the industrialised, developed economies. The inappropriateness of investment-return calculations based mainstream human capital frameworks that lay undue significance on education and specialised skill development, in a context where bulk of the labourforce acquires training hereditarily or on-the-job, undertakes multiple jobs and are oriented towards survival based livelihood, reflects the inherent perceptional biases and calls for a broader perspective towards understanding human capital base of the Indian labour markets.

This paper seeks to ascertain the human capital base in the context of the structure and functioning of the existing labour markets in India, to elucidate the vast, rich and innovative presence of operative skills in the numerically dominant segments of the labourforce (ironically called unorganised or informal economy, despite 93 per cent of employment and 63 per cent of Gross Domestic Product (GDP) contribution coming from it)[1]. The theoretical framework of human capital derived from the developed, industrialised economies when superimposed in the Indian labour markets context seems limited in its applicability as educational and specialised skill formation considerations are more relevant for the organised sector, whereas human capital development for the unorganised economy requires an entirely different perspective and approach.

The conventional understanding of human capital formation that has gained popularity ever since the 1960s is based on considerations of investment – return calculations, developed as an explanation for the presence of wage differences (Becker, 1964; Rosen, 1987; Schultz, 1961; Mincer, 1974).

[*] Junior Fellow, Centre for Women's Development Studies, New Delhi.

The inappropriateness of such an human capital approach for the dominant labourforce segments that display multiple skill adaptation and human capital development which is oriented towards survival based livelihood rather than enhancement of future incomes needs to be recognised in order to elucidate upon the human capital base of Indian labour markets. A proper exposition of these dimensions of human capital base poses many challenges to the understanding of labour market structures and their functioning, especially the prevailing theoretical contexts used for explaining the operating processes within labour markets (Rosen, 1981; Dreze, et al., 1986; Ashenfelter and Layard (eds.), 1986; Bharadwaj, 1989). Some of these have been highlighted for further explorations in this paper.

The conventional human capital base viewed as the educational and skill components of the labourforce and their absorption range within Indian labour markets are discussed in section 1. The standard theoretical understanding of labour markets, their structure and functioning, examined through an alternative specification of layers of Indian labourforce in the context of segmented, fragmented labour markets which clear at multiple equilibria points that reflect the wage differentials prevalent and the play of interconnected institutional factors that affect the mechanisms is presented in section 2.

Specific instances of labourforces operating within the numerically dominant segments and the significance of human capital development (albeit quite distinct from the conventional notions) for survival are dealt with in section 3. Finally, in the concluding section, the insights gained by examining the actual operations of the Indian labour markets for understanding and widening the conceptual and practical definitions of human capital formation are noted. This aids to recognise the nature of skill development that prevails, the potential for growth and the limitations on scope for expansion or growth stemming from the structure of the labour markets.

I. Conventional Human Capital Understanding – Limits to its Applicability for Indian Labour Markets

The stock of skills and productive knowledge embodied in people are human capital. The concept of human capital is older and wider, however it gained currency ever since the 1960s in the context of investments and returns being studied in order to explain the wage

differentials prevalent in the labour markets (Rosen, 1987; Becker, 1964; Weiss, 1986; Willis, 1986; Hunter and Mulvey, 1981 among others). The major emphasis initially was upon educational attainment as a human capital element. The theories conventionally formulated in the context of developed, industrialised economies wherein a basic minimum level of education is built-in, concentrated on issues of investment in higher education, post-schooling pursuit of studies which implied foregone earnings (Mincer, 1974; Lazear, 1981; Schultz, 1960; Rosen, 1987 and the references cited therein). Thus, the element of choice considered within an almost unidimensional growth path visualised for all human beings, wherein basic schooling followed entry into labourforce, alternatively exercising the option when feasible to pursue higher education in the hope of earning better and higher returns in future, that justifies incurring further expenditure during the phase within one's lifecycle when a certain stream of earnings would flow in, constituted the framework within which human capital formation is analysed.

Formal schooling, (a basic minimum educational level in developed countries), often state-provided, is viewed as setting the stage for accumulation of specific skills and learning on-the-job through training under concrete work situations (Rosen, 1981; Singh, 2002; Ramachandran, 2002). Learning with experience, apart from apprenticeships, formal training programmes and so on are all interpreted as on-the-job training in the human capital literature (Rosen, 1987; Mincer, 1962).

Since ability is considered as complimentary with schooling, it is assumed that the more able will choose to invest more as the rate of return to schooling will be larger for them, while abstinences from investment is viewed as a rational choice exercised by persons who expect relatively smaller personal return (Becker, 1964; Rosen, 1987; Willis, 1986; Mincer, 1974). However, choice may be based on some natural ability or inclination. Thus, ability bias and selection are dealt with quite differently in the literature on educational screening and selection (Spence, 1973; Rosen, 1981).

Observing ability and productivity of persons is very costly and difficult (Hunter and Mulvey, 1981). Education is viewed as a mechanism signalling and assisting the identification process of more or less talented persons, provided the more able can purchase the education based informational signal on more favourable terms than the relatively less able[2]. In an economy where both social and economic inequalities dictate and influence access to

education and schooling, such signalling need not relate to ability and it may introduce biases and distortions in the informational device (Spence, 1973; 1974; Snower, 1996). Also, in the labour market context, where occupations continue to be influenced by a host of interconnected, informal institutional factors such as caste, hereditarily acquired professions and skills, community based networks; and a substantial proportion of the labour force is self employed; hiring mechanisms are localised, based on social access to information on labour supplies and their potential abilities; and training is on-the-job, apprenticeship or experience based (Harriss-White, 2003; Dreze, et al., 1986; Sankaran and Rao, 1995; Harriss, et al., 1990), the significance of education as a signal is further weakened tremendously under these circumstances.

Formal schooling decisions are only half the story in human capital accumulation and skill development and in the Indian context, in quantitative terms using numbers of persons who pursue education beyond middle and higher levels of schooling, the proportions are small at 33 per cent of the labourforce (NSS, 1999-2000). In 1999-2000, about 44 per cent of all workers were illiterate and another 23 per cent had schooling only upto primary levels. Defining middle level schooling as one of the necessary conditions to function in a modern economy, only one-third of the labourforce had schooling upto that level and above[3] (Planning Commission, 2001).

Although education per se may be considered homogeneous in a conceptual framework as well as in terms of its impact on labour market processes, human capital investments assume heterogeneities as diverse as the range of activities operational in the Indian labour markets. Technical and vocational skills based on formal training structures are also subject to the above mentioned limitations as in the case of school education (Ramachandran, 2002; Standing, 2002; Singh, 2002).

Standard understanding of marketable skills listed as per the 30 skills on which survey was carried out by NSS also covers only a small segment of Indian labourforce (ranging from 10 per cent to 20 per cent for rural and urban males, with female levels of any marketable skills possessed being lower (NSS, 1993-94, see Planning Commission, 2001; Annexure 6.1, p.142)). In order to consider the human capital base, therefore, there is a need to examine the evolution and development of different types of skills and human capital formation over working lives of Indian labour, that requires analysing how work itself is organised and

structured. This becomes absolutely essential in the context of Indian labour markets, wherein a vast majority of the labourforce is involved in the numerically dominant, low productivity, low return generating segments that are termed unorganised or informal economy (for want of another more suitable or appropriate nomenclature) (Oberai and Chadha (eds.) 2001; Papola and Sharma (eds.), 1999).

The basic tenets of human capital theories wherein investment in education or skill development is viewed as income enhancing endeavour, to move upwards towards higher wage returns in the future is critically examined in the context of the Indian labour markets. Skill development is largely limited to spheres of activities within the organised sector, whereas a bulk of the numerically dominant sector activities and the skills deployed by labour supplies therein to earn their livelihoods remains obscured due to the perceptional biases.

In the Indian context with a majority of the labourforce dependent on agricultural and unorganised segments for their livelihoods (see Appendix Table 1), any consideration of human capital base needs to account for skills and productive knowledge utilised in these activities. The concept of human capital as commonly used and come to be popularly perceived connotes education and skill development as appropriate for the labourforce within the organised sector of the Indian economy. This refers to a minuscule 7 per cent of the labourforce.

In Indian labour markets that deploy illiterate labour supplies for a substantial part, scarce resources constrain access to basic levels of education (PROBE, 1999; even where it is free of cost, the non-monetary investments called for are not compensated by bringing better returns), and the nature of human capital attributes does not always translate into higher returns. All these factors highlight the delimited range of operation of the standard, conventional human capital theories.

For instance, as a framework for analysis, equalising or compensating wage differentials have found widespread use as a theory of supply of workers to labour activities that are differentiated by various attributes (Rosen, 1987 and references cited therein; McCormick and Smith (eds.), 1968). The activities that offer favourable working conditions attract labour at lower than average wages, whereas jobs offering unfavourable working conditions must pay a premium as offsetting compensation in order to attract workers (Ashenfelter and

Layard (eds.), 1986; Dreze et al., 1986). In the Indian labour market context where social structures and informal institutional considerations enter into the domain of labour market functioning, these frameworks no longer remain applicable (Papola and Rodgers (eds.), 1992; Harriss-White, 2004; Kannan, 1992; Lucas, 1986; Rustagi, 1999). Despite the unfavourable conditions of work such as scavenging, removal of dead bodies or animals, sewer cleaning and so on, there is hardly any premium paid to compensate for the adverse conditions. Socially defined hierarchical structures, caste considerations form the basis for workers undertaking these tasks (Harriss, et al., 1990; Portes, et al., 1989).

The overwhelming surplus labour supplies dispel any chances of the operation of frameworks which are based on higher wage returns. Even among the educated labourforce, the numbers of available labourers far exceed the demand for their qualified level of labour services. Therefore, a common trend noted in Indian labour markets is overqualified personnel approaching/applying for jobs requiring a far lower level of human capital as considered through its proxy of educational qualifications (D'Souza, 2002; Singh, 2002)[4]. Thus, human capital dimensions, in order to be captured appropriately in the context of the Indian labour markets need to take into account their structure and functioning.

II. Multilayered Structures of Indian Labour Markets

In order to develop an appropriate understanding of human capital base for Indian labour markets, as emphasised in section 1, the abilities, skill development and human capital formation of the labourforce involved in the informal economy are essential. The operation of the labour markets and their structures, especially those pertaining to the informal sectors have posed several challenges to conventional economic theories (Bhardwaj, 1989; Lucas, 1986; McCormick and Smith (eds.), 1968; Rosen, 1981). This extends to the application of human capital theories as well. Education does not seem to impact upon the earnings of agricultural labourforce (Acharya, 1999), skill/training may facilitate access or entry into formal sector jobs (being a necessary condition) but does not serve as a sufficient one to gain employment and pursuit of marketable skills have limited bearing upon the future earnings of the workers (D'Souza, 2002; Snower, 1996; Harriss-White, 2003).

This paper seeks to highlight that since a bulk of Indian labourforce are involved in agricultural activities, with more than one half of them being self employed, and a majority of

them illiterate or with education below middle schooling level, considerations of human capital base in the Indian labour markets needs to account for the mechanisms adopted within these segments termed unorganised sector. Since standard human capital theories are inappropriate and inadequate for the multilayered, segmented labour market structures (especially the segments pertaining to informal economy), to work towards widening and elaborating the framework, altering the perspective for considering the human capital base an alternative approach to understand the labour market functioning is required. It is through the multiple layers of operations within the labour markets and their functioning that issues pertaining to human capital theories are sought to be examined.

The educational levels among the Indian labourforce are gradually increasing, especially among the young between 15-29 years. Nearly 50 per cent of persons in the labourforce are educated upto middle schooling and above levels among the 15-29 years population (NSSO, 1999-2000). The aspirations of most of these young new entrants would be to gain entry into the organised labour markets (Gupta, 2003). However, the actual employment generated in the government public sector formal jobs has been shrinking and employment has been shifting into informal sectors[5] (Kundu, 1997).

Human capital elements such as education and specialised skill formation (as conventionally understood) are relevant for jobs in the public and private formal sectors. The level of education and training undergone by the persons in the labourforce defines the point of entry, kind of employment profile sought, expected earnings and so on. The minimum qualifications such as educational, skill/training and so on, become precisely minimum conditions that are necessary but not sufficient for entry as many eligible persons seek the few jobs available (Neetha, 2004; Chadha, 2000).

Despite efforts of the state to enhance educational levels and increase enrolment, access to literacy still remains subject to class, caste and gender, with the initial endowments of households defining and affecting these decisions. Thus, the educational participation of economically and socially backward communities such as Scheduled Castes/Tribes (SCs/STs) reveal a far lower literacy attainment as a proportion of the entire population. The rural masses are worse than the urban counterparts, and substantial gender differentials persist, displaying tremendous variations across locations and states of India (PROBE, 1999, Tilak, 2002; Rustagi, 2003).

The coveted employment remains the insecure, protected, government, public sector jobs which have strictly laid down procedural specifications for selection and screening, such as written tests, interviews and so on. The aspirants among job seekers (with mandatory minimum qualifications and more) exceed the exogeneously determined demand for labour and this mismatch provides the conditions for use of alternative mechanisms for entry based on networks, contacts, bribes and donations to circumvent or supplement the stiff competition.[6] To account for these and other informal, institutional dimensions that influence the labour market operations, an alternative multilayered, segmented structure needs to be elucidated.

For a more appropriate approach and understanding of Indian labour markets, the entire labourforce may be categorised into four different bands within which the labour markets function (benchmark band 2, band 1 above the benchmark band, vibrant labour band 3 and survival band 4)[7]. The formal sector activities and some of the extremely high income generating occupations fall under bands 1 and 2. The government public sector jobs with their exogenously given demand and wage structures form the benchmark band (so called since it is vis-à-vis these employment categories that all other activities are categorised). The benchmark band 2 consists of both public and private sector jobs from managerial, executive posts to the peons, messengers and grade IV employees. The wage rates of these various private sector employees are almost at par (within a small range of variations), parallel to the public sector defined wage structures.

The band 1 above the benchmark consists of a thin layer of the labourforce who have either high initial endowment levels or have proven to be exceptionally good in some spheres, while the former relates to physical capital and the benefits derived from access to it, the latter refers to intense ability and human capital formation in some sphere, for instance, renowned artists, sportspersons, high powered consultants and so on all of whom earn far above the benchmark level top grades as income. Human capital endowments as understood conventionally in terms of education and skill development are most applicable for these two bands, benchmark and above. Most of the research on human capital, skill development and so on has been oriented to address issues relevant for these segments of the labour markets, that employ only a minuscule of Indian labourforce (D'Souza, 2002; Ramachandran, 2002; Singh, 2002).

The structure and functioning within the two other bands, which may be termed vibrant labour band 3 and survival band 4 and the understanding of human capital base in these predominantly unorganised, informal, numerically vast segments of the labourforce challenges the conventional conceptualisation that has gained popularity, by viewing skills and training for survival and livelihood as human capital formation. Since, these are the segments where a bulk of India's labourforce are involved in, any consideration of human capital base would remain incomplete and partisan without taking into account the skill content and human capital development witnessed in the numerically dominant segments of Indian labour markets.

The mechanisms of hiring, labour contractual systems, informal channels of establishing self employed units, the methods of skill development and training and the motivations for it reflect a different set of operative processes that are distinct from the expected behavioural patterns as specified in human capital theories (see Harriss-White, 2003; Bhalla, 2000; Kumar, 2001; Dreze, et al., 1986; Deshpande and Rodgers (eds.), 1994).

Prior to discussing how the actual labour market operations contest the expectations based on investment-risk-return being weighed against present and future considerations, the bands 3 and 4 of the labourforce need to be specified.

Band 3 is the vibrant labour market band which covers a host of activities such as small and marginal cultivation; small manufacturing, construction; trading, transport, personal and self employed services. There exists a thin layer of top level within each of these activities, wherein employers, owners, middlemen-contractors and big operators fall, and who earn very high incomes (some of them earning more than benchmark wages as well, that is, akin to band 1 earnings). The large mass of labourforce, employees, tenants, working on hired basis, contractual workers and so on earn far below the benchmark wages for any given type of employment. The distinction of workers and activities within this band (especially as opposed to the survival band 4) is that work is carried out on a more or less 'regular' basis and labour is also demanded throughout the year. The worker however, may supply labour to different employers, tasks, jobs, even in different places and at varied wages rates, which are at lower equilibrium points (that is, lower than benchmark wages and for many even lower than the stipulated minimum wages). Many of the workers involved in activities within this band often

share multiple skills, job switching and carry out more than one task/job. This is especially so among those who are not hired on a 'regular' basis or who are supplying their labour at a wage that would be inadequate to subsist unless supported by some additional earnings.

Landless labourers, petty activities in the sphere of manufacturing, trading, distribution, services; seasonal activities, casual labour working on daily wages, piece-rate contractual work, home based work, self employed and a range of personal services fall under band 4. Irregular work, multiplicity of jobs, earnings far below the minimum stipulated wage, the labourforce within this band witnesses little or no distinction between even employers and employees. In a large number of cases, more than one family member is working on one or more jobs to manage the households survival. This is the band where substantial labour supply of women and children are forthcoming. Often some of the labourforce within this band are in and out of employment.

The elucidation of activities within bands 3 and 4 (as will be discussed in the following section) while highlighting the nature of skill formation and human capital development largely in the survival and functional requirement mode, emphasises the inappropriateness of excessive importance to educational attainment under these circumstances. The human capital formation within the numerically dominant segments of the labour market is based on certain basic labour supply traits, developed through on-job training and experience over the years of survival and sustainable livelihood strategies.

III. Survival and Livelihood based Human Capital pertaining to the Numerically Dominant Segments of Indian Labour Markets

In this section, the diverse elements of human capital formation as witnessed in the sector specific activities within the informal economy (especially those falling within bands 3 and 4) are illustrated to examine how these are distinct from the expected conventional formulation of human capital in order to move towards an improved, expanded and more appropriate human capital base.

The primary, secondary and tertiary sectors are considered here with specific focus upon the activities involving bulks of the labourforce in agriculture, manufacturing, construction, trading, transport and personal services (see appendix Table 1). Since a vast range of

activities that are operational require some or the other kind of skill to function, the labourforce employed therein displays certain human capital formation. This may not always be an outcome of strategic planned endeavour since it is often the need for survival and while seeking livelihood that workers adapt, learn and equip themselves with requisite skills. In addition to this necessity governed participation within Indian labour markets, the play of intertwined, interconnected informal institutions such as social, cultural, political and religious factors impinge on the structure and functioning of labour markets (Harriss-White, 2003; Gooptu, 2001; Harriss, et al., 1990) which overrides the typical skill or human capital considerations and therefore is critically decisive in the formation of human capital base. The challenge posed is whether skills to survive which generate lower wages or earnings involve strategic planning, investment and risk taking considerations or not, and if they do not, does this contest the human capital elements of these skills.

In the Indian labour markets, a vast range of activities undertaken by bulk of the labourforce do not necessarily require higher educational qualifications or specialised skills (as conventionally understood). Alternatively, even tasks undertaken in villages, as cultivation, fishing, tree felling, thatching, hunting, and numerous similar activities involve certain special skills or adeptness. Many of the rural workers involved in primary sector activities are mutli-skilled performing diverse sets of work to survive (Kar, et al., 2001; Unni and Rani, 2003). Within manufacturing sector, especially where home based or contractual work is carried out, certain basic adeptness of calculations and estimations regarding raw material use, time taken and tasks completed improve the conduct of work schedules. While it may be the case that educated workers, at least up to a certain level beyond primary education and with higher awareness levels, perform better, it cannot be concluded that uneducated, illiterate workers are necessarily inefficient or ill-equipped to gain requisite adeptness.

This is further supported in numerous instances of labourforce involved in services sector activities such as trading, transport, personal services and so on. Transmission of skills on-the-job or through informal training channels is more common than the formal sources (Sasikumar, 2002; Samal, 1990), since the endeavour of workers is to seek gainful employment. The scope of specialised skills within the labour markets is limited and so is the access to such training itself (Harriss, et al., 1990; Kannan, 1992). Thus, numbers of engineers, doctors, nurses, management executives, lawyers are quite small as compared to total employment within these service sectors.

Since the country is resource poor, with financial resources being scarce, the investment consideration for formal skill acquisition is limited to few hands who have inherited or family support, otherwise the transmission occurs while on-the-job for a bulk of the labourforce. Skills once aquired do not necessarily result in upward mobility of earning-income trajectories, due to the operation of labour markets which are influenced by non-formal institutional factors that contest the conventional adoption of human capital theories (and in fact theoretical explorations applied in the contect of labour markets in India as well). By undertaking a discussion on the activities which involve a bulk of India's labourforce, these dimensions that portray a different scenario when viewed from human capital theories perspectives are highlighted.

A major segment of India's labourforce are involved in agricultural activities and depend on it for their livelihood (238 million of the total 397 million in 1999-2000, see Appendix Table 1). The land ownership patterns are extremely skewed, with the concentration of land in few hands, while the bulk of persons involved in the sector are either landless labourers or own small and marginal farms (Radhakrishna, 2002; Sarap, 1991).

These petty cultivators resort to number of other activities in off-season periods to make both ends meet, since cultivation generates small returns, if any. Most small and marginal farmers produce for home consumption and need to depend on other skills or jobs to earn small sums of monetary incomes. Some of them undertake manufacturing, trading or personal services, making classification of their labour supply difficult based on standard conventional definitions (Kar, et al., 2001; Deshpande, 2001; Bose, 1996).

The traditional orientation of agricultural sector and all related activities undertaken therein, do not spring up issues concerning skill content of the workforce involved in carrying out these tasks. This is applicable to most of the primary sector activities, such as cultivation, animal husbandry, fishing, hunting and so on, that are hereditarily adapted and learnt on-the-job most of the times by children from adults within families, or young entrants working along with skilled, trained employer, co-worker and so on. Since most of the persons involved in these activities are undertaking work at a small scale, have low productivity and lower value in comparison to the industrial products, hence the skills utilised by the unorganised labourforce are not recognised.

Cultivation of a vast majority of crops are carried out based on local, traditional knowledge systems popularised and transmitted through channels. New crops, methods and inputs are introduced periodically based on the existing levels of research and development (Pulamte and Abrol, 2003).

In the case of introduction of new crops, the processes involved are negotiated through a set of informal mechanisms. The initial inputs may be derived from government or other sources who are interested parties to such introduction[8]. The cultivation of crops not used for direct consumption locally can hardly be adopted or incorporated by the illiterate and unaware rural masses involved in self-sufficient agriculture, without the intervention of certain other forces. However, while it may be easier for outside agencies to make inroads into specific locales via-media persons who are educated to some extent, this is not a mandatory or necessary condition. Even illiterate farmers have been reached and communicated to regarding the technicalities, and related details involving the cultivation of new crops. While it may be the case that education facilitates faster and efficient execution so as to enhance returns, lack of education under the conditions in which cultivation occurs, need not necessarily be a deterrent in farmers' endeavours to improve productivity and earnings. The pros and cons of introducing new crops are weighed by farmers based on the information made available to them through various channels. The reliability or correctness of the information determines the extent of certainity, risk and expected returns. However, these abilities and traits are seldom considered as human capital formation since these are not based on education and conventionally understood skill training components.

The adaptation of skill/ techniques of cultivation (as they undergo changes) by labourers, most of them illiterate and considered unskilled, highlights the bias in perceptions regarding human capital formation more starkly. In any rural village labour market context, the differing capabilities of the workers and their labour supply traits are know to the interested agents (landlords, owners, employers or contractors) through social networks or informal channels (generally at no cost) (Dreze, et al., 1986; Bliss and Stern, 1982; Harriss-White, 2003). Search for labour in the agricultural sector other rural activities is generally based on social informational access and since most relations are flexible and short term (where continuation of the employee-employer relationship is in the hands of the latter's discretion), the implications of human capital formation undergoes critical change. In such situations, the

more able bodied, skilled worker may be desirable and preferred over others, however variations in wage rates for access to better skill levels are generally not common[9] (Harriss, 1989; Dreze, et al., 1986; Harriss-White, 2003). The preference is reflected in the worker having a more improved level of access to work/employment as compared to other workers.

The nature of ability or adeptness desired is often clubbed together with basic character traits such as honesty, sincerity or commitment to the chores undertaken or discipline or speed of execution. In other words, the human capital considerations include an amalgam of all these dimensions and it needs to be noted that these traits may not be easily taught or transmitted through the formal training schools kind of approach. The social framework within which this is generated, such as family, interpersonal relations are crucial institutions for the creation and perpetuation of certain moral or ethical codes that lie at the base of such labour supply characteristics.

Manufacturing and construction are the two secondary sector activities, where a bulk of labourforce is involved in unorganised sector activities (see Appendix Table 1). Contractual labour, outsourcing, use of migrant labour decline in formal sector activities and shift to informalisation, insecure and unprotected labour that is not akin to the regular work are the characteristics that are visible in activities within these sectors (Bose, 1996; Portes, et al., 1989; Breman, 1996).

The typical notions of skills as fostered by mainstream understanding, should be applicable to these sectors, however an exploration of the different scales and layers (Das, 2003) exposes the perceptional clouding of recognising work done within these numerically dominant segments as skilled work.

The learning on-the-job by workers working for a skilled employer and their subsequent branching out to start their own manufacturing unit is commonly noted. Are these unorganised sector manufacturing unit entrepreneurs and workers considered skilled or not? To the extent they are producing the products that are marketed and generates some income for all those involved in manufacturing these, there is an undeniable human capital element in all such activities.

Ease of entry is noted as a characteristic feature defining the informal sector activities, however, for all activities which require certain financial capital only those persons who have access to an initial capital for investment, ownership of resources or creditworthiness can establish themselves (Samal, 1990; Sankaran and Rao, 1995; Kumar, 2001; Das, 2003). This brings in class-caste-family considerations, which are not akin to human capital formation elements.

Manufacturing sector employs 48 million persons NSS, 1999-2000) of which only less than 7 million are within the organised sector, while the rest are in the unorganised sector. Elements of human capital formation, skill development, educational levels as mechanisms for signaling, screening and selection of workers operate within the minuscule segments of organised sector (D'Souza, 2002; Planning Commission, 2001; Singh, 2002), with the methods adopted for hiring workers in the unorganised sector being quite different. In the larger, numerically dominant segments akin to bands 3 and 4 (as per the alternative categorisation specified), workers acquire skills on-the-job and are often multi-skilled since workers end up undertaking different kinds of jobs to sustain themselves (Portes, et al., 1989; Sasikumar, 2002; Rustagi, 1999). Hence, skills and more importantly, the inclination and aptitude to learn and acquire the required skills for any particular category of job serves as desirable labour supply characteristics. These skills even with experience do not necessarily entail enhancement of wages or incomes within any given job (Harriss, 1989; Dreze, et al., 1986). In order to increase income, either undertaking more work or if feasible to move into formal or semi-formal structures becomes essential.

The demand for labour is subject to the overall economic growth and the situation of other markets (goods, labour and capital). Hiring mechanisms for the bulk of labourforce located at the lower rungs of wage rates are localised, more or less regular and often at a predetermined prevalent rate for any specified task (which may vary marginally, if at all, depending on scarcity, urgency, skill levels, experience and trustworthiness factors).

Labour supply forthcoming is largely uneducated, illiterate and gains training on-the-job in a majority of the cases (Deshpande and Rodgers (eds), 1994; Mukhopadhayay, 1994; Oberai and Chadha (eds.), 2001). Thus, the elements of signalling are far removed from the standard human capital theories education based models, in the case of many of the unorganised sector workers. Reliable words of an earlier employer, co-worker or some agent, based on

experience on-the-job serve as the positive signal for entry of new workers (Harriss-White, 2003; Singh, 2002).

Hiring of contract workers through middleman-agents is a common mechanism gaining popularity (Bose, 1996; Sasikumar, 2002). These agents have access to information regarding the nature of jobs available, labour requirements on the one hand and the labour supply attributes of workers on the other hand (including their situation such as desperation levels, indebtedness and so on). By trading this information the middleman-contractor-agent earns a commission.

The formal channels of advertising through employment exchanges, newspapers, media and so on cater to the minuscule bands 1 and 2 jobs, while a bulk of workers are hired through more localised, informal and improvised mechanisms[10]. The former involves some cost to the employer, while the latter are carried out at almost no cost to the employer, since workers themselves or through word-of-month get such information. Where middlemen agents are operating on the request of employers, they are paid a commission for their services. The functioning of these agents for unorganised, contractual workers is generally undertaken for certain payment by the labourers as share of their wages, further reducing their meagre earnings (Sasikumar, 2002; Breman, 1994).

Workers are hired either as apprentices to be trained on-the-job, or are on trial to test competencies and abilities, since there are not certificates or degrees to assess or base judgment regarding the workers. The expectation that persons with a certificate will be preferred is belied if it accompanies a demand for higher wages/returns as well. Thus, skills or training acquired on-the-job in these circumstances do not involve risk or investment calculations with the intention of expecting higher income returns, rather it is in most cases sheer compulsion/need to be employed/earning for survival that lies at the base of undertaking such a decision on the part of the worker. Steady, long term work relations or associations are not feasible for many band 4 workers (Breman, 1994; Standing, 2002).

In all construction activities, there are combinations of manual labour and skilled workers employed. While manual labouers are involved in various tasks such as carrying mud, bricks and other raw material, skilled tasks are those undertaken by masons, bricklayers, welders,

carpenters, mudhouse builder and thatcher and so on. Clearly, the wage rate for a skilled worker is higher than that of the unskilled manual worker.

The casual workers, local or migrant, as new entrants into the labour market seek employment as manual labour. Gradually, over the period of work, some of them pick up certain skills. Not all persons have the aptitude to undertake any task, for instance, certain persons have fear of heights and therefore cannot work in the construction of high rise buildings (tasks therein that involve negotiating heights), or sheer inability to carry heavy loads screens out certain labourers from jobs involving such work. Physical ability, health status, individual aptitude and personal life experiences can influence persons decision to undertake and pursue work in any given sphere of labour activity (for instance, a bad accident can drive out the person from transport sector; health mishap may prevent someone from carrying heavyloads).

Consider the skilled job of drivers within transport sector, who require a driving license to operate as drivers or that of mechanics/ repairing work. These are not necessarily dependent on any educational qualifications or formal training. Impartation of skill and methods of hiring are generally informal, by introduction through known persons or existing employees. These hiring mechanisms create barriers to entry especially for the segments which are coveted in terms of pay or security. Training is on-the job through apprenticeship.

Regional and community groupings among workers hired by any transporter are fairly common (Sasikumar, 2002; Harriss-White, 2003). These hired employees are paid wages or salaries based on their skill levels and sometimes years of association may ensure some hike in these payments. Limits to bargaining for a raise in pay are constantly experienced due to supply pressures which both parties (employer and employee) are aware of and this keeps a check on wage rates, since labour turnover is easy and costs little to the employer. Only those who value reliability of workers and prefer to be assured of drivers' skills or dependable mechanics will concede some benefits to these labourers[11]. Thus, human capital formation under these circumstances may not be adequate in gaining employment unless certain other factors based on informal associations and social networks are coordinated to attain desired objectives (Harriss-White, 2004).

Given the manner in which Indian labour markets are structured with large numbers of self employed and another bulk of hired employees, and their functioning influenced by social institutions that gains significance for assessing employment, skill per se becomes immaterial. Also, the fact that acquisition of most skills is not extremely difficult or such that it requires long term training, the abundant labour supply constrains and delimits the possibility of any labour shortages to persist in the long run. Any rise in demand for labour witnesses an upsurge in the acquisition of required skills so as to result in labour supply surpluses and market gluts within a short period. Instances of professionally qualified, specialised skills such as engineers, doctors and lawyers on the one hand; and information technology (IT) related software professionals, medical transcription, call centre workers, assembling electronic goods, garment sector workers and many more similar examples on the other hand reveal these trends over time (Unni and Rani, 2003; Kumar, 2001; Neetha, 2004; Vijayabaskar, et al., 2001).

More than one-half of workers in all industries are self employed (53 per cent, NSS 1999-2000). At the lower end of the activities within each sector, it is often difficult to distinquish the workers and their incomes so as to categorise them into slots (Kar, et al., 2001). Often retailing, distribution and transportation, or manufacturing, marketing and trading are difficult to differentiate in band 4 activities. Even illiterate, uneducated vendors are estimating probabilities and taking risks based on social knowledge of expected demand positions. A combination of human capital based skills of entrepreneurship, information acquisition and trading process, risk assessment, pricing, marketing are combined with financial, time and space management, goodwill building, survival earnings to sustain livelihoods and derive income gains.

Among the service providers, skilled persons such as plumbers, electricians are also acquiring training informally on-the-job and hired for lower wage rates (Sankaran and Rao, 1994; Lanjouw and Shariff, 2004). Access to such informal skills to provide services have the tendency of lowering wage rates for these skilled jobs as well (Snower, 1996).

Labourforce working as security personnel, domestic maids and so on do not require any rigorous training as such, however previous experiences, good past service record, and traits of adapting to new job regimens, being reliable and trustworthy aid them in seeking entry into jobs.

Caste based occupations, traditional skills, patronage based arts, crafts and cultural pursuits constituted a part of the social structure of village societies. Disturbances introduced due to urbanisation, modernisation, industrialisation, monetisation led to de-skilling, change in preferences and priorities, shift in perceptions and relative values. Demographic changes, increasing numbers of people entering the labourforce, inadequate employment avenues to absorb them, leading many to pursue survival based livelihood introduces its own level of dynamism that results in human capital formation, albeit quite different from conventional perception based understanding of what skill development constitutes in the context of Indian labour markets. The significance of human capital formation as witnessed in the functioning labour markets needs to be recognised and perceptional changes to remove the biases are required to acknowledge the prevailing human capital base by taking into account the numerically dominant segments of the labourforce.

IV. Concluding Remarks

This paper highlights the implications of limiting the analysis of human capital base in the Indian labour markets to the standard economic theories based frameworks. Since these theories were derived from the developed, industrialised economies context, their applicability and relevance for addressing the labour and human capital issues pertaining to a largely agricultural, developing economy has its own sets of limitations. The undue importance given to the formal, organised segment which is by and large a marketless, quantitative entity in the context of public sector employment (which is more than two-third of organised employment - of the total organised sector workers (28 million) – 19 million are in the public sector NSS (1999-2000)), propels towards an approach for labour market understanding that is partial (in as such as it shies away from addressing many critical dimensions), biased and highly limited. The perceptional biases and myopic visions curtail addressal of issues pertaining to the larger masses of India's labourforce which are integral to labour markets behaviour.

The significance of social structures, caste more than class, role of socio-cultural and religious institutions, as well as factors considered non-economic or extra-economic such as bribes, donations and so on have been revealed from empirical studies for understanding labour markets (Harriss-White, 2003; Rustagi, 1999; Harriss, et al., 1990; Papola and

Rodgers (eds.), 1992). The inability to account for these factors stem from disciplinary boundaries that have been created to enable clear understanding of economic functioning. If these disciplinary constraints curtail the very objective for which they are in place, then there is need to question the boundaries and explore beyond.

Evaluation and enumeration, whether GDP, accounting, taxation, productivity and efficiency calculations are based on the monetary/value addition approach. This approach of considering money or equivalent contribution introduces an inherent bias in our understanding whereby organised labour markets and the human capital requirements relevant in the context, gain precedence while undermining all the others. The contribution made by a large segment of band 3 and 4 activities and their skill content are not adequately recognised, captured or calculated. Often sectors which employ even small shares of the labourforce receive a lot of attention and hype such as IT related activities, call centres and so on.

The exposition of labour market structures, contrary to the expectation of upward mobility and shift to higher wage equilibrium, reveals an almost continuous movement to push downwards labour as well as retain a low wage equilibrium trap. Job creation is witnessed in the unorganised segments. These sectors not only do not attach premium to formal skills, rather they prefer the informally trained persons who can be hired at lower wages.

The existing formal training, vocational skill development schemes have limited scope and cater to only some sections of the labourforce. These are not planned to orient themselves for the masses in the numerically dominant sectors.

Finally, it may be stated that change in theoretical framework to address the numerically dominant segments of the labourforce and in perceptions/mindsets to attribute due recognition to the existing living human capital base is required.

Appendix Table 1: Organised Sector Jobs in Employment by Industry

	Employment (million)				Share of Organised Sector (per cent)	
	1993-94		1999-2000			
	Total#	Organised Sector*	Total#	Organised Sector*	1993-94	1999-00
Agriculture	242.46	1.48	237.56	1.39	0.61	0.58
Mining & Quarrying	2.70	1.09	2.27	1.01	40.37	44.49
Manufacturing	42.50	6.40	48.01	6.75	15.05	14.06
Electricity	1.35	0.97	1.28	1.00	71.85	78.13
Construction	11.68	1.23	17.62	1.18	10.53	6.70
Wholesale & Retail Trade	27.78	0.45	37.32	0.49	1.62	1.31
Transport, Storage and Communication	10.33	3.11	14.69	3.15	30.11	21.44
Financial Services	3.52	1.53	5.05	1.65	43.46	32.67
Community, Social & Personal Services	32.13	10.93	33.20	11.49	34.02	34.61
All Sectors	374.45	27.18	397.00	28.11	7.26	7.08

* As on 31-03-1993 and 31-03-1999

As on 1-1-1994 and 1-1-2000

Source: 1. DGE & T for employment in organised sector

2. 55th Round Survey of NSSO for total employment

Endnotes

[1] See Oberai and Chadha (eds.), 2001; Harriss-White, 2003 among others.

[2] As where scholarships are awarded to selected students for supporting the better qualified through financial assistance.

[3] The urban labourforce percentage is higher at 57.4 per cent but the rural areas report only 25.4 per cent of labourforce with schooling upto middle level and above (NSS, 1999-2000; Planning Commission, 2001).

[4] The example of 80,000 applicants for class IV railway employees (*khalasis)* posts, of which half of them were graduates and above, while the required level was eighth class schooling, is an illustration in this regard.

[5] The proportions of educated unemployed have been rising (Planning Commission, 2001).

[6] Even illegal, discriminatory and corrupt practices are witnessed to be operating. Instances of job brokers within the establishment and corrupt bureaucrats doling out jobs to select candidates are also noted (Harriss-White, 2003; Mathur, 1996; Wade, 1985).

[7] These are broad bands of activities so categorised for clearer elucidation of labour markets multilayered structures and not water-tight compartments (these are to be developed in a forthcoming article).

[8] For instance, sugar mill owners facilitating sugarcane cultivation; or cultivation of oilseeds, potato, mushroom, cotton, vegetables, fruits, medicinal and herbal plants; or the pulp providing trees introduced by paper mill owners; and so on (Breman, 1974; examples of J.K.Paper Mills, KVIC and information sought during surveys).

[9] Unless there are other other (non-economic) factors at play as well, the typical bargaining theory of wage kind of better returns for improved skill levels not commonly visible in the informal sectors of the Indian labour markets.

[10] In Industrial estates, flatted industries complexes and areas where such labour requirements occur periodically, employers have initiated their own systems of announcing vacancies and filling them up. Notices stuck up or written and pasted on boards, doors, trees, mostly in designated places are noted by researchers.

[11] The absence of better and more lucrative employment avenues even for the skilled persons delimits their bargaining potential.

References

Acharya, Sarthi (1999), "Explaining Returns to Education Among the Self-Employed in a Semi-Agrarian set-up", *The Indian Journal of Labour Economics,* Vol.42, No.2, pp.187-94.

Ashenfelter, O. and Layard, R. (eds.) (1986), *Handbook of Labour Economics*, Vols.I and II, North-Holland, New York.

Becker, Gary S. (1964), *Human Capital: A Theoretical Analysis with Special Reference to Education,* Columbia University Press for the National Bureau of Economic Research, New York.

Bhalla, Sheila (2000), *Behind Poverty: The Qualitative Deterioration of Employment Prospects for Rural Indians*, Working Paper No.7, Institute for Human Development, New Delhi.

Bharadwaj, K. (1989), *The Formation of the Labour Markets in Rural Asia,* World Employment Programme Working Paper 18, ILO, Geneva.

Bliss, C.J. and Stern, N.H. (1982), *Palanpur: The Economy of an Indian Village,* Oxford University Press, Delhi.

Bose, A.J.C. (1996), "Subcontracting, Industrialisation and Labouring Conditions in India: An Appraisal", *The Indian Journal of Labour Economics*, Vol.39, No.1, pp.145-62.

Breman, J. (1974), *Patronage and Exploitation: Changing Agrarian Relations in South Gujarat, India*, University of California Press, Berkeley.

------ (1994), *Wage Hunters and Gatherers: Search for Work in the Urban and Rural Economy of South Gujarat,* Oxford University Press, Delhi.

------ (1996), *Footloose Labour – Working in India's Informal Economy*, Cambridge University Press, Cambridge.

Chadha, G.K. (2000), "Youth Unemployment in India: Past Policy Gaps and Future Strategic Options", *The Indian Journal of Labour Economics*, Vol.43, No.4, pp.591-624.

Das, K. (2003), "Income and Employment in Informal Manufacturing: A Case Study" in Jhabvala, R.; Sudarshan, R.M. and Unni, J. (eds.) *Informal Economy Centrestage – New Structures of Employment,* Sage, New Delhi, pp.62-103.

Deshpande, L.K. (2001), "Labour Flexibility in India", *The Indian Journal of Labour Economics*, Vol.44, No.3, pp.389-412.

Deshpande, L.K. and Rodgers, G. (eds.) (1994), *The Indian Labour Market and Economic Structural Change*, BR Publishing Corp. for the Indian Society of Labour Economics (ISLE), Delhi.

Dreze, J. Lureth, L. and Mukherjee, A. (1986), *Rural Labour Markets in India: Theories and Evidence,* paper presented at the 8th World Congress of the International Economic Assocaition, New Delhi, December.

D'Souza, Errol (2002), "Firms, Nations and Training", *The Indian Journal of Labour Economics*, Vol.45, No.4, pp.1073-8.

Eatwell, J., Milgate, M. and Newman, P. (eds.) (1987), *The New Palgrave: A Dictionary of Economics*, Vol. II, Macmillan Press, London.

Gooptu, N. (2001), The *Urban Poor and the Politics of Class, Community and Nation: Uttar Pradesh between the Two World Wars,* Cambridge University Press, Cambridge.

Gupta, Dipankar (2003), "Meeting "Felt Aspirations": Towards a New Paradigm of Development", *The Indian Journal of Labour Economics*, Vol.46, No.3, pp.381-96.

Harriss, J. (1989), "Vulnerable Workers in the Indian Urban Labour Market" in Rodgers, G. (ed.), *Urban Poverty and the Labour Market: Access to Jobs and Incomes in Asian and Latin American Cities*, International Labour Organisation, Geneva.

Harriss, J.; Kannan, K.P. and Rodgers, G. (1990), *Urban Labour Market Structure and Job Access in India: A Study of Coimbatore*, International Labour Organisation, Geneva.

Hariss-White, Barbara (2003), *India Working – Essays on Society and Economy,* Cambridge University Press, Cambridge.

----- (2004), "India's Socially Regulated Economy", *The Indian Journal of Labour Economics,* Vol.47, No.1, pp.49-68.

Hunter, L.C. and Mulvey, C. (1981), *Economics of Wages and Labour,* Macmillan, London.

Kannan, K.P. (1992), "Labour Institutions and the Development Process in India" in Papola, T.S. and Rodgers, G. (eds.), *Labour Institutions and Economic Development in India*, International Institute for Labour Studies, International Labour Organisation, Geneva, pp.49-85.

Kar, A.; Singh, G. and Kulshreshtha, A.C. (2001), "Multiple Employment and its Implications for Estimation of Gross Domestic Product", *The Indian Journal of Labour Economics*, Vol.44, No.2, pp.155-69.

Kumar, Nagesh (2001), "Small Information Technology Services, Employment and Entrepreneurship Development: Some Explorations into Indian Experience" in Kundu, A. and Sharma, A.N. (eds.), *Informal Sector in India – Perspectives and Policies*, Institute for Human Development and Institute of Applied Manpower Research, New Delhi.

Kundu, A. (1997), "Trends and Structures of Employment in the 1990s: Implications for Urban Growth", *Economic and Political Weekly*, June 14, pp.1399-1405.

Lanjouw, P. and Shariff, A. (2004), "Rural Non-Farm Employment in India-Access, Incomes and Poverty Impact", *Economic and Political Weekly,* Vol. 39, No. 40, pp. 4429-46.

Lazear, Edward P. (1981), "Agency, Earnings Profiles, Productivity and Hours", *American Economic Review*, Vol.71, pp.606-20.

Lucas, R.E.B. (1986). "An Overview of the Labour Market in India", *Discussion Paper,* World Bank, Washington, D.C.

Mathur, K. (ed.) (1996), *Development Policy and Administration: Readings in Indian Government and Politics* – 1, Sage, New Delhi.

McCormick, B.J. and Smith, O.E. (1968), *The Labour Market*, Penguin, London.

Mincer, J. (1962), "On-the-Job Training: Costs, Returns and Some Implications", *Journal of Political Economy,* Vol. 70 (Suppl.), 550-579.

----- (1974), S*chooling, Experience and Earnings,* Columbia University Press, New York.

Mukhopadhyay, S. (1994), "Casualisation of Labour in India: Concept, Incidence and Policy Options", in Deshpande and Rodgers (eds.), pp.141-8.

Neetha, N. (2004), "Education and Skill Development of Workforce in Noida Export Processing Zone", *The Indian Journal of Labour Economics*, Vol.47, No.2, pp.269-280.

NSSO. (2001), *Employment and Unemployment Situation in India, 1999-2000*, NSS 55th Round (July 1999-June 2000), Government of India, New Delhi, July.

Oberai, A.S. and Chadha, G.K. (eds.) (2001), *Job Creation in Urban Informal Sector in India: Issues and Policy Options*, South Asia Multidisciplinary Advisory Team (SAAT), International Labour Organisation, New Delhi.

Papola, T.S. and Rodgers, G. (eds.) (1992), *Labour Institutions and Economic Development in India,* International Institute for Labour Studies, ILO, Geneva.

Papola, T.S. and Sharma, A.N. (eds.) (1999), *Gender and Employment in India*, Vikas Publishing House, New Delhi.

Planning Commission (2001), *Report of the Task Force on Employment Opportunities,* Government of India, New Delhi, July.

Portes, A., Castells, M. and Benton, L.A. (1989), *The Informal Economy: Studies in Advanced and Less Developed Countries*, John Hopkins University Press, Baltimore.

PROBE (1999), *Public Report on Basic Education in India*, Oxford University Press, New Delhi.

Pulamte, L. and Abrol, Dinesh (2003), "Technology Transfer for Rural Development – Managing R and D at CSIR", *Economic and Political Weekly,* Vol. 38, No. 31, pp. 3315-8.

Radhakrishna, R. (2002), "Agricultural Growth, Employment and Poverty: A Policy Perspective", *The Indian Journal of Labour Economics*, Vol.45, No.1, pp.3-16.

Ramachandran, H. (2002), "Economic, Skill Development and Changing Labour Market", *The Indian Journal of Labour Economics,* Vol. 45, No. 4, p.999-1014.

Rosen, S. (ed.) (1981), *Studies in Labour Markets*, University of Chicago Press, Chicago.

----- (1987), "Human Capital" in Eatwell, et al. (eds.), *The New Palgrave: A Dictionary of Economics*, The Macmillan Press Limited, London.

Rustagi, P. (1999*), The Structure and Dynamics of Indian Rural Labour Market*, Unpublished PhD thesis, Jawaharlal Nehru University, New Delhi.

----- (2003), *Gender Biases and Discrimination Against Women: What do Different Indicators Say?,* UNIFEM, New Delhi.

Samal, Kishor C. (1990), *Urban Informal Sector*, Manak Publications, Delhi.

Sankaran, T.S. and Rao, V.R. (1995), *The Urban Informal Sector in India – A Study of Govindpuri, (Delhi)*, Jaishankar Memorial Centre and Friedrich Ebert Stiftung, New Delhi.

Sarap, K. (1991), "Changing Contractual Arrangements in Agricultural Labour markets: Evidence from Orissa", *Economic and Political Weekly,* Vol. 26, No. 52, pp. A167-A176.

Sasikumar, S.K. (2002), "Migrants in Urban Informal Economics: Changing Tendencies", Seminar Paper, *Labour Mobility in a Globalising World: Conceptual and Empirical Issues*, Organised by V.V.Giri National Labour Institute; Indian Society of Labour Economics and Institute for Human Development, New Delhi.

Schultz, T.W. (1960), "Capital Formation by Education" *Journal of Political Economy*, Vol.68, pp.571-83.

----- (1961), "Investment in Human Capital", *American Economic Review*, Vol.51, pp.1-17.

Singh, Surjit (2002). "Education, Skills and Training: Some Perceptions", *The Indian Journal of Labour Economics,* Vol. 45, No. 4, p. 1079-93.

Snower, D.J. (1996). "The Low-Skill, Bad-Job Trap" in Booth, A.L. and Snower, D.J. (eds.), *Acquiring Skills, Market Failures, Their Symptoms and Policy Responses",* Cambridge University Press, New York.

Spence, Michael A. (1973), "Job Market Signalling", *Quarterly Journal of Economics*, Vol.87, pp.355-75.

----- (1974), *Market Signalling: Informational Transfer in Hiring and Related Screening Processes*, Harvard University Press, Cambridge.

Standing, Guy (2002), "Globalisation: The Eight Crises of Social Protection", *The Indian Journal of Labour Economics*, Vol.45, No.1, pp.17-46.

Tilak, J.B.G. (2002), "Education Poverty in India", *Review of Development and Change*, Vol.7, No.1, pp.1-44.

Unni, J. and Rani, Uma (2003), "Employment and Income in the Informal Economy: A Micro-Perspective" in Jhabvala et al., (eds.), pp.39-61.

Vijayabaskar, M.; Rothboeck, S. and Gayathri, V. (2001), "Labour in the New Economy: Case of the Indian Software Industry", *The Indian Journal of Labour Economics*, Vol.44, No.1, pp.39-54.

Wade, R. (1985), "The Market for Public Office: Why the Indian State is not Better at Development", *World Development*, Vol.13, No.4, pp.476-97.

Weiss, Yoram (1986), "The Determination of Life Cycle Earnings: A Survey", in Ashenfelter, O. and Layard, R. (eds.), pp.603-40.

Willis, Robert J. (1986), "Wage Determinants: A Survey and Reinterpretations of Human Capital Earnings Functions", in Ashenfelter, O. and Layard, R. (eds.), pp.525-600.