

Employment, Exclusion and ‘Merit’ in the Indian IT Industry

The Indian information technology industry is often represented as providing employment opportunities to a wider cross section of society than has been the case with other professional and white collar jobs. However, available data suggest that the social composition of the IT workforce is more homogeneous than is often supposed, in that the workforce is largely urban, middle class, and high/middle caste. The processes of exclusion that operate in the educational system and in recruitment as also the ideology of “merit” in the context of elite opposition to reservation, create this relative social homogeneity in the IT workforce.

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The Indian information technology (IT) industry has been frequently hailed by the media, the state, and industry leaders as a significant new source of high quality and well-paid employment for the educated youth of India. With the recent rapid growth of the industry and expansion in the size of the workforce, the sector already employs more than one million people and is projected to generate many more jobs over the next few years. More important, the IT industry is often represented as providing employment opportunities to wider sections of the population than has been the case for most managerial, professional, and white collar jobs. Industry leaders frequently argue that because of the shortage of technically qualified people, they have had to look far and wide for workers, in the process drawing in many people from non-middle class/upper caste backgrounds. Linked to this, a common narrative holds that employment does not depend on social connections (influence) or “ascriptive” status (reservations) – unlike in the public sector and “old economy” companies – but is based entirely on “merit”. However, the social reality appears to be somewhat different. In this paper, I present data from a study of the IT workforce in Bangalore and draw on other sources to show that the social profile of IT workers is largely urban, middle class, and high or middle caste. The processes of exclusion that operate in the education system and in the recruitment process to create this relative social homogeneity are delineated. Finally, I discuss the ideology of merit that dominates the industry in the context of the recent debate on reservations.¹

I Social Composition of the IT Workforce

The rapid growth of the Indian IT and IT enabled services (ITES) industries in response to the outsourcing/offshoring trend in the advanced industrial economies is well known.² While these industries provide a wide range of services, this paper focuses on workers in the export-oriented software services sector. Till date there has been no large-scale study of the social-economic background of IT professionals, hence we are forced to rely on smaller and partial studies such as the one described here. It must be emphasised that our sample size of 132 software engineers in Bangalore is much too small to be representative of the larger picture, and we do not make any claims about the social profile of the IT workforce as a whole on this basis. Moreover, our sample

may be further skewed due to the fact that it was drawn mainly from the overseas development centres (ODCs) of multinational companies (MNCs), and large and medium size Indian companies in the export sector, while smaller, “informal sector” and domestic sector firms may have more diverse workforces. However, in the absence of larger data sets, the information presented below provides some indication of the socio-economic background of the IT workforce, and the conclusions are supported by other studies and by the more extensive qualitative data collected during our study.³ The key findings are summarised below.

Socio-economic Class

Data from our study and several others suggest that most software engineers come from middle class, educated families. Taking parents’ education and occupation as a proxy for socio-economic class (in the absence of reliable income data), our survey of software professionals in Bangalore found that 80 per cent of their fathers had graduate degrees or above, while only three respondents (out of 132) had fathers with less than SSLC level education. In addition, 56 per cent of respondents’ mothers were graduates or above. Another survey of 102 software engineers in Bangalore yielded similar findings: 77 per cent of respondents’ fathers had graduate or postgraduate degrees and all of the remainder had at least completed high school. The mothers in this sample were similarly highly educated, most up to high school level and half with graduate degrees [Krishna and Brihadesam 2006:3309-10].⁴

With regard to occupation, 84 per cent of the fathers in our sample were engaged in occupations that are usually identified as “middle class”: they were managers or executives in public and private sector companies (21 and 10 per cent, respectively), government officers (21 per cent), professionals such as doctors and university professors (18 per cent), and businessmen (13 per cent). Only 9 per cent had fathers in lower level clerical (white-collar) or blue-collar jobs, and 3 per cent were from agricultural families. Another survey similarly found that almost all of the fathers of respondents were engaged in middle class professional or managerial occupations [Oommen and Meenakshisundararajan 2005].

Krishna and Brihadesam (2006) collected information on consumption as an indicator of economic status and found a

somewhat more diverse socio-economic profile, with about 15 per cent coming from what they classified as “lower” economic backgrounds, 40 per cent from “lower-middle”, 28 per cent from “upper-middle”, and 19 per cent from the “upper” category. Although their study shows that some people from lower and lower-middle class backgrounds have entered this profession, they still conclude that the majority of software engineers come from the middle class. The pattern found in these studies is not surprising, for it is primarily the middle class that possesses not only the economic means but also the social and cultural capital necessary to equip their children to enter this profession, as discussed further below.

Rural-Urban Origin

Representatives of the software industry often claim that a large proportion of the workforce is drawn from rural and semi-rural areas. For instance, in a recent newspaper column, one of the founders of the Bangalore-based software company MindTree, Subroto Bagchi, argued that IT “... is an industry that has a very high number of people who have been children of significant economic and social disadvantages but have broken free from their background and are treated at par by their employers” [Bagchi 2006]. He cites a survey in his own company that found that 33 per cent of new recruits were from “rural, agricultural backgrounds” while 20 per cent were from small business families.⁵ Our survey however indicates a different trend: 36 per cent of the sample were born in one of the five metros (including Bangalore), 29 per cent were from tier two towns and cities such as Mysore and Pune, and only 5 per cent came from rural areas. However, an interesting finding is that a substantial proportion – 31 per cent – came from tier three towns, including district and taluk headquarters such as Tumkur, Guntur, or Madurai, and smaller, semi-urban towns.⁶ Similarly, an ILO survey of 143 IT professionals in Bangalore and Delhi, carried out a few years earlier, found that 44.1 per cent were from the metros and 43.4 per cent from other urban areas, while 8.4 were from semi-urban and 4.2 per cent from rural areas [Rothboeck et al 2001:36].

These figures suggest that the IT industry has not opened up significant new opportunities for people from rural areas, contrary to common perception. Even among those software engineers who come from rural and semi-urban areas, closer investigation of their background usually reveals that most are from relatively well-off agricultural families and have entered the profession after being educated in one of the many private engineering colleges located especially in the smaller towns of the southern states. While again there are no comprehensive data to substantiate this statement, ethnographic studies and anecdotal reports suggest that it is primarily the nouveau riche class of the more developed rural regions who have been able to take advantage of these new opportunities [Xiang 2002]. So while the availability of private engineering education in rural areas and small towns has opened up an avenue for the entry of people from rural and semi-urban backgrounds into the IT profession, the available evidence suggests that it still has not become a significant means of social and economic mobility for the poor and for people from lower castes in rural areas. Moreover, it appears that a substantial proportion of software professionals from small towns belong to high castes, especially brahmins.

Caste and Religion

With regard to caste and community, 88 per cent of respondents in our survey were found to be Hindus while only 5 per cent were Christians and 2 per cent Muslims. Brahmins constituted 48 per cent of our sample. The predominance of brahmins is not surprising, given their historical monopoly over higher education and formal sector employment, especially in south India [Fuller 1999; Fuller and Haripriya 2007]. If we include others belonging to “twice-born” castes, the figure for all upper castes comes to 71 per cent. Employees from dominant agricultural castes [including some which are classified as other backward classes (OBCs)] constituted 15 per cent, bringing the proportion of respondents who come from upper or dominant caste groups to 86 per cent. If we further include some of the Christian respondents, such as Syrian Christians (a relatively wealthy landowning community in Kerala), the proportion is even greater. Only one respondent said that he belonged to a scheduled community. Other studies have thrown up the same pattern: in the survey by Oommen and Meenakshisundararajan (2005), three-fourths of the respondents were from forward castes and the rest were OBCs, while none were from the SC/ST category [Fuller and Narasimhan 2006; 2007].

Social Profile of IT Professionals

The limited data available from our own and other studies suggest that the IT workforce is much more socially homogeneous than is often claimed by many industry leaders, in terms of class (middle class), caste (upper and middle caste), and regional (urban) background. However, this statement must be qualified by highlighting two distinctive features of its social composition: first, the large proportion who are from small towns, and second, the significant minority of workers from non-Brahmin middle to high ranking and dominant (including some OBC) castes. While the fact that a substantial proportion of the workforce hails from small and medium size towns (which are often labelled as “rural” by city-bred human resource managers) is often taken as evidence of the IT industry’s inclusiveness, this picture is misleading because most of such employees are from the upper and middle (dominant) caste groups – especially brahmins and landowning agricultural communities – that historically have benefited most from the spread of educational opportunities. Again, there should be nothing surprising in these findings, for given the pattern of inequality of opportunity in education that prevails in the country, any occupation that requires a high level of education and training – especially such a highly competitive one as IT – is bound to draw on the more privileged sections of society. It is not only inequalities in the education system that produce this social profile however – it is also an outcome of the IT industry’s requirement for workers with a certain kind of cultural capital, who are capable of being moulded into “global professionals”, as I argue in the next section.

I

Production of the IT Workforce

Examination of the recruitment practices of IT companies reveals that there are several mechanisms that have the effect of privileging candidates with a certain social background. Of course, existing inequalities and exclusionary mechanisms in the

higher education system produce a skewed pool of potential hires, over which the industry does not have control, but this is exacerbated by several of the selection procedures used.⁷

The first important factor is that software companies recruit primarily engineering graduates – although they also hire graduates and postgraduates with other computer-related degrees such as Master's in Computer Applications (MCA).⁸ Studies show that the percentage of students from OBC, SC and ST categories graduating from engineering colleges (and from other professional and graduate courses) continues to be much lower than their percentage in the population, and that of higher castes correspondingly much higher. Further, upper caste Hindu youth are two to four times more likely to be graduates than are youth from the OBC, SC, ST categories and Muslims [Deshpande 2006; Deshpande and Yadav 2006; Mohanty 2006]. Since Hindu upper castes constitute almost 67 per cent of engineering and technology graduates [Deshpande 2006:2439], it would not be surprising to find that upwards of 70 per cent of the IT workforce are upper caste.⁹

The advantageous position of the upper castes in education largely flows from historical factors and their class status. (We know that the Indian "middle class", although it is becoming more heterogeneous, is predominantly upper caste in composition, although the reverse may not be true.) Given the mushrooming of private engineering colleges and coaching classes designed to help students get admission to the premier institutions, students from middle class and wealthy families have a clear advantage in higher education. Students from lower caste, rural, and working class families, on the other hand, are more likely to study in government schools and in the vernacular medium, to have less well-educated parents, and also lack the economic and cultural resources to develop their merit (high marks in examinations). All these factors work together to create a bias in the social composition of potential IT hires.

Apart from the inherent inequality in the pool of candidates that is created by the education system, there are certain features of the recruitment process that tend to favour middle class (and upper caste) candidates. Here I focus only on the campus placement process, which is the major source of new recruits for IT companies, rather than recruitment as a whole. The first filtering mechanism that comes into play here is the fact that all the major IT companies visit only selected institutions each year to recruit students, based on their ranking of engineering colleges.¹⁰ The large companies usually visit 50 to 60 campuses, while multinational corporations (MNCs) and the medium-sized Indian products or services companies may visit about 10 select campuses. The rankings of the top 50 colleges are more or less the same for all the companies, and the majority of engineering colleges are not even ranked by the major companies. This means that for the major companies (which are the largest employers), the pool of candidates is limited at the outset to students of the best engineering colleges in India.

Second, only those students with a certain cut-off percentage throughout their course (usually 70 per cent aggregate marks) are allowed to apply for placement. In fact, many IT companies require candidates to have had a consistent average of 70 to 75 per cent marks from standard 10 onwards. This requirement tends to exclude engineering students who have gotten seats on government quotas (SC/ST or OBC) with lower cutoff marks and who were not able to score well in previous examinations because of their educational and social background.

The third level of filtering occurs during the interview process, which follows a written test (usually of logical, analytical, and problem-solving skills, as well as English and maths). First there is a group discussion to evaluate communication skills, personality and spontaneous thinking abilities. The candidates who are short-listed in this round are then individually interviewed. There are two types of interview – technical and human resource (HR). The HR interview is designed to assess non-technical attributes of candidates, such as attitudes and values, personality, career aspirations, and "soft skills", and to determine whether s/he will "fit" into the company's culture. The most important "soft skill" that is assessed during the HR interview is communication skill. Since many software jobs, especially in services companies, are "client-facing", good communication skills are considered to be essential, and a candidate who is otherwise well qualified may be rejected purely on this basis. The requirement for good spoken English, which is assessed during the interview, tends to exclude those from lower caste, rural, and less privileged backgrounds. While fluency in English is a basic requirement, the term "communication skills" refers more broadly to the ability to converse and interact easily in different social and cultural situations. The assessment of the candidate's general appearance, demeanour, and "ability to mingle" during the HR interview acts effectively as an exclusionary mechanism, in that it is weighted against those who are not from middle class, cosmopolitan and English-speaking backgrounds. Good communication and social skills, confidence, and the right kind of personality are elements of cultural capital that students from urban middle class (and usually high caste) families are most likely to possess [Fuller and Narasimhan 2006]. With the increasing emphasis that is placed on soft skills by the IT industry, candidates from non-metropolitan, non-middle class, and lower caste backgrounds are even more likely to be passed over. Thus, students who have entered engineering colleges through government quotas, who have the requisite marks in their engineering course, and who have passed the initial written tests, are still likely to be "weeded out" in the subsequent rounds.

Thus, the sharp disparities in the higher education system together with the industry's recruitment practices tend to skim off only the cream among engineering graduates as well as privileged students with the right kind of cultural capital – social skills, communication style, deportment, and so on. In addition, these filtering mechanisms have created a system of stratification within the IT workforce, in that a software engineer's position and career prospects in the industry are largely determined by his or her educational background. While graduates from the IITs and other premier institutions land the best jobs (in MNCs and the more challenging technical jobs in reputed companies), those from tier two and three colleges tend to be slotted into the more routine and low-end jobs. For instance, several of the large Indian software services companies prefer to hire students from tier three campuses rather than from the top ranking colleges, because the best students are not suitable for the kind of routinised work that is on offer. As an HR manager put it, they require "guys who can just sit and code and not ask questions". This remark suggests that hiring practices tend to reproduce within the industry the social hierarchy or class fractions that characterise the middle class in general: the best "high-end" and top management jobs are likely to be monopolised by people from more privileged social backgrounds (i.e., middle to upper class and caste, from the best institutions), while greater "diversity" may be found at the lower end of the job market.¹¹

In sum, the IT industry looks for certain “social types” to fill its ranks of “knowledge workers” and designs recruitment procedures to filter out those who do not “fit”. Hiring practices also slot recruits into the workforce at different levels, according not only to educational qualifications but especially social skills and cultural capital.

III

Ideology of ‘Merit’ and Reproduction of Privilege

The foregoing discussion challenges the dominant industry position that entry into the IT industry is completely based on merit, that factors such as caste, region, gender and class are irrelevant, and that it has created significant new employment opportunities for rural youth and for the socially and economically disadvantaged. It hardly needs to be pointed out that the merit argument ignores the social and economic factors that produce “meritorious” candidates in the first place, especially the continuing monopoly over a certain kind of cultural capital that is enjoyed by the middle class – which is composed mainly of upper castes – due to their greater access to the best educational institutions and other processes of social closure. This is not to suggest that the industry deliberately practises caste (or any other kind of) discrimination in recruitment. Rather, the worker profile required by this outsourcing business makes it more difficult for people from non-urban and lower caste/class backgrounds to enter, because certain social and cultural attributes are thought to be necessary to work in a “global” environment. This situation has been acknowledged by industry leaders, who have repeatedly urged, for instance, that English be introduced at the primary level in government schools and that appropriate soft skills be taught in schools and colleges, in order to expand the pool of qualified candidates. Of course, IT companies need to hire people with the requisite skills for the jobs, and they cannot be faulted for having to choose from a limited and skewed pool of candidates. However, there is an apparent contradiction between the limited recognition that processes of exclusion do operate in the industry, and the official position that upholds merit and individual achievement as the sole criteria for recruitment. For this reason it is important to examine closely the operation of the ideology of merit in the industry and its role in the production of the IT workforce.

Although there is some recognition on the part of industry leaders that the workforce is not as inclusive as it could be, most are firmly opposed to legal or administrative action to remedy this situation or to increase diversity. Indeed, IT industry leaders – and even “techies” themselves – have been at the forefront of opposition to the recently revived proposal for reservations in the private sector, as well as the new policy of reservations for OBCs in premier institutions of higher education.¹² For example, the former Chairman of Infosys N R Narayana Murthy made the following statement:

I firmly believe that there is considerable social injustice in the country and that we have to help the disadvantaged people to overcome this. The solution is not reservations in education or in employment. The solution is to make the disadvantaged people more competition worthy than they are today.¹³

The industry’s position on this question flows in part from its growing requirement for large numbers of highly educated and “learnable” young people: the spectre of reservations that threatens to open the doors of premier institutes to masses of

“unmeritorious” students in their view would further reduce the pool of “employable” engineers. The standard argument is that reservations or affirmative action would adversely impact the industry’s competitiveness (and hence its ability to provide more employment for India’s youth). Instead, steps should be taken to make young people from rural areas and lower castes more competitive in the job market, especially by improving the quality of school education. To this end, and also in order to be seen as “good corporate citizens”, several IT companies have funded and led initiatives in the area of primary education. Industry leaders have also repeatedly blamed the government’s poor performance in education for the dearth of qualified candidates and “poor quality” of most engineering graduates, and the industry has taken steps to upgrade and re-orient engineering education to better suit its needs.¹⁴

The staunch opposition to reservations or affirmative action that is the dominant position of most IT (and other) industry leaders is closely linked to their support for liberalisation. It is this connection that has elevated the ideology of merit to an article of faith. Industry spokespersons often claim that the IT industry has flourished in India primarily because of the absence of state interference or control, and that it would not have grown as fast as it has if it had been subjected to the kind of bureaucratic controls that typified the Nehruvian planned economy. This provides the basis for their argument against any kind of government “interference” (including, for instance, the application of labour laws), and allows them to insist that IT companies must be left free to hire the most meritorious people in order to maintain their competitive edge (without interference by the state in the form of reservations). The notion that the IT industry has grown because of liberalisation neglects the fact that it has all along received substantial support from the state, both directly in the form of various subsidies, tax holidays, provision of land and infrastructure, and other policy measures, and indirectly in the form of the large pool of “knowledge workers” that has been produced through state investments in higher education over several decades [Balakrishnan 2006; Parthasarathy 2005]. Given this history, from a policy point of view one could make a case that the industry should give something back to the state and to the wider society. Yet, because of its central symbolic position in the current discourse on India’s new development path under liberalisation, the IT industry has been able to sustain a large degree of autonomy from state regulation, in part by promoting its image as a “new” kind of industry – meritocratic, open, and socially committed – that is providing ample (and equal) opportunities to anyone willing to work hard enough to take advantage of them.

IV

Corporate Sector and Social Responsibility

The discussion in this paper suggests that one of the reasons for the IT industry’s success is that it has been able to tap the existing cultural capital of the urban middle classes (which consist primarily of high and middle castes) – including their educational attainments, knowledge of English, and some degree of westernised social orientation and habitus. The IT workforce is drawn mainly from this section of society, and by providing new and lucrative employment opportunities it is in turn contributing to the reproduction and consolidation of middle class/upper caste domination. The middle class is certainly

expanding in size and diversity, and the IT industry has been an important force behind this process by pulling at least some people from non-dominant social groups into the middle class. Yet in the final analysis, the industry cannot be said to have contributed to overcoming the deep social and economic divisions that continue to characterise Indian society. This in itself would not be cause for criticism – for one may argue that it is not the role of the corporate sector to remedy social ills – were it not for the continual litany that emanates from IT industry leaders about the opening up of employment opportunities, which in turn is attributed to their commitment to merit. In this context, it is not unfair to examine closely the production and composition of the IT workforce, rather than accepting the industry's representations of itself at face value. For instance, the industry's emphasis on the need to improve primary education, while laudable, also has the effect of deflecting attention away from the question of exclusionary processes in employment. It is also based on the individualist liberal assumption that all that is required is to provide every child with an education that will enable him or her to "compete" on an equal footing. This notion, like the ideological opposition to positive discrimination of any kind, reflects a complete denial of the unequal distribution, by class and caste (and other divisions such as gender and religious community), of the cultural, social, and economic capital required to become an IT professional.¹⁵

In the context of rising political support for reservations in higher education and private sector employment, it would in fact be in the interest of IT companies to formulate or support some kind of positive discrimination policy (statutory or voluntary) and to increase the diversity of their workforces. For instance, although the pool of qualified OBC and SC/ST engineers may be smaller than that of engineering graduates from upper castes, given the large number of graduates overall it should be possible for companies to evolve preferential hiring policies (together with training programmes) to ensure the inclusion of employees from more diverse backgrounds. However, given the bias against any kind of protective discrimination among most of the elite and the middle classes, proposals for caste-based reservations are usually dismissed out of hand. In order to forestall criticism and the possible imposition of quotas, several companies have already taken steps to increase the diversity and inclusiveness of their workforces, for instance by floating internship schemes and training programmes for rural youth and scheduled caste engineers. This may then be the right time to open up the debate on inclusion and exclusion in private sector employment and to push the IT industry (and other major employers) to rethink their hiring policies and to make commitments on this issue. **EPW**

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Notes

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1 This paper is based on a sociological study of the Indian information technology and IT enabled services (IT/ITES) workforce in India and abroad that was carried out by A R Vasavi and me along with a research team at the National Institute of Advanced Studies, Bangalore, in collaboration with Peter van der Veer (University of Utrecht). The research project was funded by the Indo-Dutch Programme on Alternatives

in Development, The Netherlands. Much of the fieldwork was done by Sarita Seshagiri and Sahana Udupa. For a comprehensive report on the study's findings, see Upadhyaya and Vasavi (2006), available on the NIAS website (www.iisc.ernet.in/nias).

- 2 The software and services industry is often referred to generically as the "IT (information technology) industry" in India. NASSCOM estimates that the total direct employment generated by the industry came to 1.3 million in 2005-06 – representing a rapid expansion from the figure of 2,84,000 for 1999-2000 (NASSCOM, Knowledge Professionals – Factsheet, www.nasscom.org). Of the estimated one million software employees, about 3,45,000 are in the exports sector, 3,48,000 in the ITES-BPO sector, and the rest are in the domestic sector or are "in-house" IT professionals.
- 3 Fieldwork for the study was conducted over 18 months, between January 2004 and June 2005, in Bangalore and in three countries in Europe. Research methods were primarily qualitative and ethnographic in nature, including informal interviews and interactions with a large number of IT and ITES employees, managers, their family members, and others connected with the industry, at workplaces and elsewhere; observations in IT/ITES companies and at other sites; and interviews and discussions at other relevant sites such as engineering colleges. In order to generate some amount of quantitative data, we also conducted structured interviews with a purposively selected sample of IT employees. To construct this sample, we attempted to select companies that represent a cross-section of the IT export industry: the final sample was drawn from two large Indian software services companies, two medium-size Indian companies (one product, one services), five multinational (MNC) software development centres, and six small companies (both Indian and foreign-owned, and a mix of products and services). We had targeted a larger sample size, but could not achieve it due to difficulties in getting permission to conduct interviews. Also, we could not access HR data from most of the sample companies that might have helped us to paint a more comprehensive picture of the workforce. Within each company, we conducted interviews with a small number of employees (relative to the size of the company – ranging from 20 to 40 each in the medium and large companies to five in the small ones) – who were a randomly selected but structured sample reflecting the demographics of the workforce, i.e., in terms of age, gender, years of experience, and position. However, because we had to depend on HR managers for sampling we had little control over the selection process. Completed formal interviews in software companies totalled 132, obviously much too small a sample from which to generalise. However, other studies mentioned here with similarly small sample sizes indicate similar trends. Moreover, this survey formed only a small part of the entire research project, and information collected from informal interviews and qualitative data also support the argument presented here. Another caveat is that it may be unwise to generalise from one city to the entire IT sector in India. However, it can be assumed that many of the features described here are common throughout the industry, given the high level of mobility of the workforce. Bangalore is widely regarded as the premier centre for the IT and ITES industries in the country and attracts IT professionals from across the country, but for this reason may have a more diverse workforce compared to other centres such as Chennai.
- 4 A survey of 100 software professionals in Chennai, Bangalore, Hyderabad, and Thiruvananthapuram found that 97 per cent had parents who were graduates and three-fourths of the fathers had postgraduate or professional degrees [Oommen and Meenakshisundararajan 2005].
- 5 He also refers to Krishna and Brihmadessam's study (2006), which covered MindTree and two other companies, but his interpretation of their data is sharply different from their own. In fact, the authors of the study argue that having a rural background operates as a major constraint on entry into the software industry because of the poor standard of education (including teaching of English), the relatively lower level of education of parents, and lack of access to information on career paths [Krishna and Brihmadessam 2006:3312]. This discrepancy clearly points to the dominance of the ideology of merit and of the myth of inclusiveness in the IT industry.
- 6 Krishna and Brihmadessam (2006, p 3309) found similar results, but a somewhat smaller proportion of their respondents were from metro cities, 32 per cent were from state capitals, 23 per cent from district capitals, and 11 per cent grew up in villages. In the survey by Oommen and

- Meenakshisundararajan (2005), only 12 per cent of respondents were from rural areas.
- 7 The discussion of recruitment practices in this section is based on interviews with HR managers from 16 companies, and placement officers of several engineering colleges in Bangalore.
 - 8 It is important to note here that IT companies prefer to hire engineering graduates not because their training is necessarily related to the work they will be doing (unless they have studied computer science or related streams), but because they believe that they have already been pre-selected for a certain level of intelligence and aptitude. These companies hire engineers from any stream and then train them in computer programming. Athreye [2005, p 159] suggests that the preference for engineers is a way in which software companies signal quality to customers.
 - 9 After all, the argument usually made with regard to the gender ratio of the workforce is that it reflects the proportion of women graduating from engineering colleges (about 22 per cent in both cases). This means that other social inequalities in the pool of potential hires would be reflected in the workforce as well.
 - 10 Campuses are usually graded into three "tiers" (or graded as A, B, and C), with premier institutions such as the Indian Institutes of Technology (IITs) in tier one and the government-run National Institutes of Technology (NITs), the top state campuses, and a few of the better private institutes in tier two. Tier three colleges include the less well known campuses but ones that are still considered to produce "employable" engineers.
 - 11 It is not surprising that all of the CEOs of MNC development centres we met in Bangalore were IIT graduates (most of whom had worked in the US for a number of years before returning to India).
 - 12 The strength of this opposition is seen in the fact that at the height of the anti-reservation agitation in 2006, a number of IT professionals came out on the road near Electronic City in Bangalore (the campus that houses Infosys as well as several other software companies) to protest – although they were not liable to be directly affected by the new policy.
 - 13 *Times of India*, April 23, 2006, quoted in Assadi [2006, p 3146].
 - 14 Concerns are frequently expressed by the industry about the dearth of qualified people, and spokespersons often quote a report that found that only 25 per cent of the 2,90,000 engineering degree and diploma holders that enter the workforce annually are suitable for employment in the offshore IT industry (Summary of NASSCOM-McKinsey Report 2005, in NASSCOM Newline No 50, December 2005, www.nasscom.org). Commissioned studies have highlighted the poor quality of education imparted by many of the engineering institutes and the need to produce more graduates with the appropriate technical and "soft" skills, and both the industry and the state have initiated programmes aimed at improving engineering education [Government of India 2003; NASSCOM 2004]. However, statements by HR managers suggest that what makes most engineers unemployable is the lack of soft skills suited to the industry, discussed above, more than technical deficiencies.
 - 15 There is no space to tackle the thorny but crucial question of the relationship between caste and class. I will only suggest that to the extent that historically the middle class – especially in south India – has been largely brahmin in its makeup, it could be argued that middle class-ness has become a new media through which brahmin status and domination are being reproduced, albeit in a transformed shape [Fuller 1999]. Further, as Ramesh Bairy (personal communication) has argued, the espousal of secular, anti-caste, egalitarian values by the middle class (as seen in the dominant discourse about the IT industry as well as the merit argument) represents the affirmation of brahmin status in the very denial of caste. What needs to be added to this argument is that it is not only caste that is denied in the dominant ideology of the middle class, but also class itself and the privileges that are accorded by middle class status. I thank Ramesh Bairy (personal communication) for pushing me to make explicit the connection between the middle class and brahmin-ness in south India, as well as between brahmins and IT, but I cannot explore this issue further here.

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