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Corrigendum

The paper entitled *Literacy and Participatory Human Development: An Illustrative Indian Exercise* published in the JOURNAL, Vol. XIX, No. 3 (July 2005) was actually authored by Rabindranath Mukhopadhyay and Sudeshna Ghosh, Department of Economics, Scottish Church College, Calcutta. The name of the second author was inadvertently omitted while processing the paper for print. The error is regretted.

Editor

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Education, Caste, Gender

Dalit Girls' Access to Schooling in Maharashtra

Padma Velaskar**

The problem of women's educational access and opportunity are receiving renewed and urgent attention today in the context of the national developmental failure to universalise elementary education even at the turn of the twentieth century. At a more fundamental level, the persistence of gender disparities in schooling has cast a long shadow on the feminist project of using education as an instrument of overcoming women's oppression. Simultaneously, however, a proper understanding of changing situations of educational access is hampered by monolithic theoretical approaches that fail to take adequate account of intersections between multiple forms of social inequality and of the significance of socio-historical contexts and dynamic \of development. In India, for example, educational issues as related to caste, class, gender, ethnicity and region, and are by and large separately examined. Educational analysis does not take into account the interactive influences of these structural variables and tends therefore to homogenise, simplify or distort a complex and highly differentiated educational reality. Justice is not done to variations and differences between and within larger social categories.

This paper is concerned with examining the implications of the interaction between caste, class and patriarchy for educational access of women belonging to dalit communities, who were subsumed hitherto under two homogenising categories of 'woman' and 'dalit'. Identified as a key strategy of liberation, education has been increasingly availed by both women and dalits. Yet the question remains as to whether the problem of universalisation continues to basically derive out of the historical legacy of their educational and social exclusion. Do women and dalits continue to remain excluded, and for that matter to what extent and for what reasons? Moreover, due to the tendency to homogenise, when we speak of dalit advance we don't know the gender picture and when we talk of women's advance we don't usually have a caste differential analysis. Following an interactive approach, we explore the specific educational situation of dalit women who have historically occupied a distinctive subordination as a result of their location in untouchable castes and their multiple oppression under traditional caste-patriarchy.

The paper examines the extent to which dalit (viz. ex-untouchable) women have been able to cut across barriers of caste, class and gender to gain access to schooling. To what

* Revised version of paper presented at 'Seminar on Women's Education and Development' held at Malsisar, Rajasthan, (July 31 - August 2, 2004).

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extent and to what educational level have they achieved parity with dalit boys and "general category", assumedly, non-dalit girls? We focus on dalit girls' access to schooling in Maharashtra, the state where both women and dalits have achieved greater levels of educational parity and educational linked social mobility as compared to their counterparts in some other large states. A comparative historical methodological approach permits exploration of the changing relationship between caste, gender and educational expansion, the focus of which is dalit girl's educational participation at primary and secondary levels of schooling. Issues of women's educational access we believe must also be underlined by a concern with women's freedom from oppression and improvements for them in social opportunities and life chances through education. It is, however, not within the scope of this paper to explore the social impact of education on dalit women's lives.

The paper begins with a brief history of dalit women's education in the colonial context, and of modern educational development among Maharashtra's dalits and women, only in broad strokes, since much historical educational research needs to be done to unravel processes and forces of educational advance among these sections.

The second section of the paper is an attempt to understand the main trends in dalit women's educational trajectory and chronicle patterns of caste/gender inequality in the post-colonial period. It conducts a comparative analysis of the educational progress of dalit girls with that of dalit boys and non-dalit girls, ascertaining patterns of enrolment, dropout and attendance at school. It also attempts to examine temporal change in levels of disparity. Given the historical legacy of regional imbalance in the state, we further examine inter-district variations in dalit girls' access to schooling. Intra-caste (i.e. within the dalit category) disparities are also an historical legacy. However, we are unable to analyse these due to absence of caste-wise educational data. The data base for the second part of the paper is census data and enrolment statistics published by the Government of Maharashtra. We must, however, state at the outset that, determining these patterns is a difficult task due to limitations of available educational data. Separate time-series data on dalit enrolment are not available up to late seventies in the publications of the Directorate of Education, Government of Maharashtra. A major shortcoming is that the vital rural/urban breakdown of enrolment/institutional data is unavailable. As is well-known to educational researchers, enrolment ratios are imperfect indicators of progress since they do not exclude under-age and over-age children. Ideally they should measure the number of pupils enrolled at a particular level of education who fall within the prescribed age limit for that stage as a percent of the total number of the eligible within that age group in the concerned population. In the absence of both age and class specific enrolment, our estimates of enrolment ratios tend to be inflated. Further, we do not have reliable estimates of the non-enrolled. In view of all these inadequacies and limitations we can at best, in this paper, indicate broad trends and make broad generalisations. Nevertheless, important trends have been revealed which indicate progress, constraints and contradictions.

The third and final part of the paper reflects on the character of educational advance that is revealed in the earlier section. We attempt, on the basis of existing research and writings and field observations gathered by the author, to hypothesise on the reasons for the patterns found in terms of ideology, structure (caste, class, gender) and state policy on equalising opportunity in education.

Historical Context

Historically, dalit women were placed in most subservient positions in the caste/gender based division of productive and reproductive labour. Despite commonalities on grounds of gender and caste, respectively, with all women and with dalit men, they bore a social oppression that was different in form and experience (Velaskar, 1998b). Under a formal education system that was founded on brahmanical principles of social closure wherein gender, "purity" and caste ranking were primary determinants of access to learning, dalit women shared educational exclusion with both dalit men and upper caste women.

Socio-historic circumstances saw the educational entry of dalit and upper caste women almost coinciding in Maharashtra. Casual factors, however, were different and subsequent developments of course followed completely different trajectories. The social reform movement created the space for upper caste women's educational access whereas dalit women's access was enabled by the anti-caste movement. The emergence of dalit women is intimately linked to the ideology and social impact of anti-caste and dalit movements and we attempt here to capture ideas and actions that stimulated and shaped this emergence. Dalit women's initial inclusion in formal education was closely tied to the pattern of educational inclusion of their caste communities. Colonial education - initially through missionary activity and later through state and indigenous activity - created the first rupture in the caste-education-link. Though it was introduced as part of western imperialist domination and served, for the greater part to consolidate high caste intellectual and social dominance, it had far reaching implications for the lower castes including the most downtrodden castes. Missionary educational efforts targeted both untouchable boys and girls and laid the foundation of low caste educational access.

Education's foregrounding as a potent instrument of liberation of both untouchables and women took place under the combined impact of social reformist actions and powerful anti-caste revolt. Emanating from the nationalist critique of society, nineteenth century Maharashtra, witnessed the emergence of several movements for social, religious and political reform that were to eventually bring about far reaching change in the secular and religious domains of the social order, including a formal acceptance of new ideals and values. The region experienced long and extensive activity and public interest in reform (Heimsath, 1964). The social ferment that was generated at the time reflected the crisscrossing of complex and contradictory economic, social and cultural processes that laid the foundation for a restructuring of caste and gender relations. This volatile situation triggered low caste and untouchable protest, forging change for these communities.

It has become customary and rightly so to locate the beginning of significant change for untouchable communities in the anti-caste movement led by Jotiba Phule (1827-1890). The movement was buttressed by a powerful counter-ideology that represented a fundamental and devastating moral and intellectual critique of Hindu society and religion. In Phule's reading of their historical subordination, it was the debarment of untouchables and women from knowledge and learning primarily responsible for their lowered positions and powerlessness. Modern education, attributed with a secular rationalist purpose would replace and nullify brahmanical education. According to Phule, women's education was the key not only to their awakening and freedom from patriarchal servitude, but to other fundamental changes in patriarchal structure. It would be vital to the development of women as persons and as citizens (Omvedt, 1990). The dogged efforts of Phule and the Satyashodhak movement enabled an educational breakthrough for low castes. Education permeated as a value and fact of life among the "lower" order people. Actual progress of dalit education however, was slow, halting and heavily constrained by shrewd colonial policies of downward filtration and religious neutrality and caste-Hindu orthodoxy. Phule himself faced virulent opposition from the Brahmin community to his educational activities on behalf of women and untouchables. After Phule, indigenous schools for the Shudra and untouchable castes continued to be set up by a number of committed Satyashodhak activists from the higher and lower castes (Velaskar, 1998; Zelliott, 2002). However, the schools were largely meant for boys. As the nineteenth century drew to a close, Phule's agenda for the spread of education among low caste women remained largely unfulfilled.

The larger state level scenario of nineteenth century social reform directed at women was characterised by a strong upper caste/middle class bias. Moderates in general, held an "upliftment" perspective towards both depressed castes and women. Their ideology was oriented towards partial religious reformation without a fundamental attack on Hindu religious philosophy. Clear caste/class and patriarchal interests determined that the primary focus of high caste reformers was upper caste women. The sole exception was that of Vithal Ramji Shinde (1873-1944). A missionary of the Prathana Samaj, Shinde ran a long rural campaign for extending compulsory primary education to girls, including those of low castes. Education was perceived as an instrument of their release and elevation to 'the higher culture' (Gore, 1987). Pandita Ramabai, the solitary radical woman leader of the times, too focussed, given one supposes the compulsion of her own location and experiences, on issues and conditions of Brahmin women (Kosambi, 1993).

In the 20 century 'Brahmanetar' (viz. non-Brahman) phase of the anti-caste movement, the battle for socio-political supremacy between the economically dominant Marathas and culturally powerful Brahmans led to rapid politicisation of education. Acquisition of knowledge was a key issue of caste conflict. Educational expansion became part of an action programme of the non-Brahmans to dislodge Brahmans from their traditional positions. Caste organisations gained ascendance and caste-based access to education and its utility for caste-based mobility, status and power became dominant concerns (Omvedt, 1976; Gore, 1989). The result was a considerable extension of

schooling and hostel facilities for children of intermediate and lower castes. Simultaneously, the provision of educational facilities and scholarships to needy and deserving students gave a helping hand in accessing education to dalit children also (Gore, 1989). Again, however, educational efforts were characterised by a strong gender bias evident in the categorical focus on boys' education (Khane, 1994). Moreover, along with progressive, equalising elements there existed narrow sectarian tendencies which eventually became dominant.

A woman's movement had by now emerged, wherein women's education constituted a prime focus in the quest for raising women's familial and political status. The National Council of Women's Education was founded in 1925 to further women's education in a context where women's literacy rate was a miniscule 1.8 per cent. As is widely recognised, the substantive impact of the movement was restricted to higher castes and class urban women, as it failed to address the conditions and issues of the masses of women (Mazumdar, 1976).

An autonomous dalit movement which first took root among the Mahars revived concern about the social condition of untouchable women. Its early ideology was rooted in the tradition of social reform. Close connections with Shinde and the Depressed Classes Mission led to the pioneering of autonomous dalit educational effort. Despite the frenzy of caste hatred and violence, there were continued attempts at founding schools and hostels, and vigorous campaigning for spreading educational awareness. They signified a new mood of confrontation and challenge (Moon, 1987; Kolte, 1975). Phule's ideological influence was evident in starting of special girls schools and in efforts of male reformers to educate their wives (Kolve, 1975, Pawar and Moon, 1989).

The Ambedkarian phase of the dalit liberatory struggle drew the dramatic entry of dalit women. The movement saw a new radicalised mobilisation which was galvanised by a new radical Ambedkar ideology of liberation. Though anti-caste and anti-untouchability in its primary thrust, the movement incorporated a separate gender agenda that sought to redefine dalit women's economic, political and cultural position. Following Phule, Ambedkar defined education as a key instrument of dalit men's and women's liberation, emphasising a secular-educational axis of mobility and the carving of a new secular social identity based on principles of equality, freedom and fraternity. He challenged archaic notions of women's intellectual inferiority and emphasised the essentiality of knowledge and learning equally for women and for men. He guided dalit women's political education through their induction into the public arena. Education became a crucial dimension of dalit women's political involvement. Women political activists emphasised the importance of female education for changing the social conditions of their caste communities as well as women's position in families and society. Ordinary women as mothers and learners waged struggles to educate their daughters and themselves (Velaskar, 2001). However, the processes of accessing education were slow.

Overall, the pre-independence history of women's education suggests that educational participation was restricted to urban high caste women. Though enabling

conditions for educational access of dalit men as well as women were created by anti-caste social movement, women's actual progress was almost negligible. It is not difficult to imagine the root cause - a simultaneous operation of caste and caste-patriarchal ideology and relations at the societal and caste/community levels. Further more mass education received attention of the colonial state only with the devolution of powers in 1937. The colonial state, societal structures and hierarchal ideologies were far too powerful to be shaken by the efforts of the few dalit and non-dalit reformers. The Ambedkarian movement, however, laid the ground for far reaching change in social conditions and educational status of the dalits. What shape did post-colonial struggles and politics take and with what consequence for dalit women's educational status? The next section examines the issue.

Expansion of Schooling, Trend in Caste/Gender Equity and Dalit Girls Schooling in Post Independence Maharashtra

After independence, the democratisation of education, wherein expansion of educational facilities was coupled with compensatory discrimination, constituted the two-pronged strategy of the Indian effort at equalisation. As we have seen, in Maharashtra, the dynamic history of social reform and social movements fuelled the processes of democratisation of education. Conducive educational climate for expansion of education was created which was manifest in the public demand for education as well state response to the provision of education. A rapid spread of schooling occurred, but from the outset it was imbalanced and uneven, reflecting the pattern of a politically motivated, regionally imbalanced and generally iniquitous economic growth (Government of Maharashtra, 1984).

Within a post-independence socio-political context of elite Maratha dominance and large-scale containment of dalit politics, education gained primacy over political struggle as an instrument of freedom and dignity for ordinary dalits. Equally, education held a special symbolic material and political significance in the context of a widespread dissemination of Ambedkar ideology. The educational struggle however, was long and hard as first generation dalit learners attempted to overcome old and new structural forces (of semi-feudal service, poverty, social stigma, and caste discrimination) and gain education (Velaskar, 1998a). How did dalit women progress vis-a-vis dalit men and non-dalit women? What are the regional and caste-wise patterns of advance and caste/gender equity? We examine this situation in the following section.

The Educational Progress of Dalit Girls

Earlier analyses show that progress of girls' education in the first three decades after independence was commendable only at the primary stage. Girls' enrolment, however, increased at a faster rate than boys. Gender inequality existed at all levels but was most pronounced at higher levels (Kamat, 1985).

Separate educational data for dalits were not made available for this period. Thus, literacy figures of 1971 will have to serve as an index of (past) educational opportunity. In 1971, the literacy rate for dalit women was only 13 percent as compared to 37 per cent for dalit men, a gap of 24 per cent that indicated women's great educational backwardness. In the same year, the general women's literacy rate stood at 26 per cent and that of males at 51 per cent. The gender gap within the general category was as large as that among the dalits, viz 25 per cent. The caste gap in literacy within genders was much lower at 14 percent among men and 13 per cent among women. It is also significant to note that by 1971, dalit men had achieved a much higher literacy level than general category women. This fact together with the fact of the smaller gap between dalit and general category women, indicate the significance of patriarchal factors and women's general backwardness. That the caste gap in literacy was lower than the gender gap indicate a slow implementation of the gender agenda even after its accommodation in the Constitution and in the state policy. The women's movement lost its radical edge and was institutionalised and the dalit movement became male-centric.

Separate educational data for dalits are available from the mid seventies. Four sets of schooling statistics will be employed in our analysis to provide some understanding of dalits girls' access to and representation in schooling and of the nature of gender disparity that prevails. In the four sub-sections that follow, we provide an analysis of educational growth for a twenty-year period from 1979-80 to 1998-99. The sections relate to: (1) growth in enrolment (including enrolment ratios); (2) dalit girls' and boys' enrolment as percentage of relevant enrolment totals; (3) gender equity at various levels of schooling within dalit and non-dalit categories; and (4) age-specific attendance rates. With respect to the second and third issues, we examine regional (district-wise) variations in dalit progress. Finally, we make use of NSSO data for 1999-2000 to get an indication of where dalits and dalit girls currently stand in education.

Enrolment Expansion and Growth

Table 1 shows the remarkable expansion and growth in total and dalit girl's enrolment in both absolute as well as relative terms as compared to the educational advance of boys, from 1979-80 to 1998-99. Girls enrolment increased dramatically from 1981-82 to 1993-94 and growth rates for girls are higher than those for boys among both general category and dalit students.

At the elementary stage (I-VII) the growth rate for dalit girls outstrips that of general category girls. Girls' enrolment at lower and upper primary enrolment levels has increased by over 10 lakhs within the general category. The corresponding figures for dalit girls are 2 lakhs and 1.6 lakhs. The growth rates registered are 32.6 and 93.4 per cent for general category girls and 53.6 and 142.9 per cent for dalit girls at lower primary and upper primary levels respectively.

TABLE 1
**Enrolment Growth for General and Dalit Boys and Girls
 at All Levels of School Education (1979-80 - 1998-99)**

Year	Standard I-IV			
	Total		Dalit	
	Boys	Girls	Boys	Girls
1979-80	4038635	3100255	587331	405971
1981-82	4172781	3264738	602844	433176
1993-94	4847193	4331840	745456	665527
Growth Rate in (81-82 to 93-94)	674412	1067102	142612	232351
Growth Rate (81-82 to 93-94)	16.1	32.6	23.6	53.6
1998-99	5679213	4685079	773884	717522
Growth Rate (93-94 to 98-99)	17.1	8.15	3.8	7.8
Overall Growth Rate (1979-80 to 98-99)	40	51	31.7	76.7
Year	Standard V-VII			
	Total		Dalit	
	Boys	Girls	Boys	Girls
1979-80	1616337	981158	197262	94898
1981-82	1805105	1113597	234721	116550
1993-94	2741627	2154683	386940	283174
Growth Rate in (81-82 to 93-94)	936522	1041086	152219	166624
Growth Rate (81-82 to 93-94)	51.8	93.4	64.8	142.9
1998-99	3095311	2699418	468915	402725
Growth Rate (93-94 to 98-99)	12.9	25.28	21.18	42.2
Overall Growth Rate (1979-80 to 98-99)	91	175.1	137.7	324.3
Year	Standard VIII-X			
	Total		Dalit	
	Boys	Girls	Boys	Girls
1979-80	972587	461103	112224	38968
1981-82	1105066	532526	133743	51134
1993-94	1960335	1281684	275238	163071
Growth Rate in (81-82 to 93-94)	855269	749158	141495	111937
Growth Rate (81-82 to 93-94)	77.3	140.6	105.7	218.9
1998-99	2304814	1758211	332191	241099
Growth Rate (93-94 to 98-99)	17.57	37.17	20.6	47.84
Overall Growth Rate (1979-80 to 98-99)	136.9	281.3	196.0	518.7

Source: Education at a Glance (1979-80 - 1998-99), Directorate of Education, Government of Maharashtra.

At the secondary level, enrolment growth rates for girls of general and dalit categories are 140.6 per cent and 218.9 per cent respectively. Dalit girls' enrolment doubled from 51,134 to over 1.1 lakh. Between levels, the greatest growth has occurred at

the secondary level. Quantitative progress over the two decade period (1979-80 - 1998-99) reconfirms the trend of highest growth rates for dalit girls.

Trends in enrolment ratios provide an added indication of educational growth. The main historical trend that is apparent from a consideration of the figures in the Table 2, in conjunction with Table 1 is that the educational system has accommodated an increasing proportion of girls and dalits. A dramatic swelling of dalit enrolment ratios is witnessed at the primary level. Middle level enrolment has advanced in the decade of the eighties and more particularly from eighties to the nineties for dalit boys and girls. At the secondary level, it is striking to note that the enrolment ratios of dalit boys and girls surpass those of general category children. Even as we keep in mind the problem of inflated enrolment ratios, and do not count them as valid indicators of "real" progress, the ratios do indicate a great post 80s spurt in educational enrolment at all levels.

TABLE 2
Stage-Wise Enrolment Ratios at Different Levels for Total and Dalit Population
(1978-79 to 1998-99)

Level Year	Primary (I-V)				Middle (VI-VII)				Secondary (VIII)			
	General		Dalit		General		Dalit		General		Dalit	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
1978-79	124.2	96.9	142.4	99.1	61.7	35.9	58.6	26.4	41.6	20.0	37.7	13.1
1981-82	122.8	98.5	140.5	102.5	64.9	39.3	66.2	31.7	41.7	20.6	40.1	15.5
1993-94	104.5	94.7	142.6	128.4	64.4	51.1	82.4	59.4	68.6	47.7	86.7	54.7
1998-99	103.9	99.7	142.2	137.4	96.4	85.8	127.0	111.0	71.6	63.3	84.6	79.7

Source: Education at a Glance (1978-79 - 1989-99). Directorate of Education, Government of Maharashtra.

Per Cent Dalit Girls and Boys Enrolment to Their Population Per Cent

To ascertain dalit educational advance in another way, we may compare figures of dalit enrolment as percentage of total enrolment with their percentage in the total population. However, we need to point out a difficulty that such a comparison holds due to inter-censal discrepancies in population data. As per the census of 1981, dalits constituted 8 per cent of the total population in Maharashtra. The census of India 1991 shows a jump in this percentage to 11.09 due to the enumeration of Buddhists as dalits after the Constitutional Amendment Act of 1990. Dalit males constitute 11.04 per cent of the total male population and dalit females constitute 11.16 per cent of the total female population of Maharashtra in 1991. The Ministry of Education of the Government of Maharashtra, however, has always recognised and included neo-Buddhists as Scheduled Castes in compiling educational data. We thus proceed with the analysis using 1991 census figures for all years, keeping in view underestimation in earlier censuses. The 1991 figures are likely to be closer to actual for preceding years.

Table 3 below depicts the aforesaid percentages from 1979-80 to 1998-99. It reveals that standing at 14.54 per cent and 13.09 per cent respectively, the percentage of both dalit boys and girls' enrolment outstripped their population percentage at the lower primary level in 1979-80 itself. However, the per cent enrolment of dalit girls was much lower than population percentage at successively higher levels of schooling i.e. at the upper primary and at the secondary levels in the same year. For dalit boys, it was higher at the upper primary stage also. In 1981-82, dalit girls' enrolment again fell short of the population proportion at the upper primary and secondary levels. The corresponding figures for dalit boys showed higher enrolment at all the three levels of schooling. The situation improved for dalit girls' enrolment at all levels between 1981-82 and 1993-94. In the latter year, their representation in enrolment was higher than in the population. By the year 1998-99, both dalit girls and boys consolidated their advance and both registered higher enrolments at all levels of schooling.

TABLE 3
**Dalit Boys and Girls Enrolment as Percentage of Total Boys & Total Girls
 Enrolment in Maharashtra (1979-80 and 1998-99)**

Year	Lower Primary		Upper Primary		Secondary	
	I-IV		V-VII		VIII-X	
	Boys	Girls	Boys	Girls	Boys	Girls
1979-80	14.54	13.09	12.20	9.67	11.54	8.45
1981-82	14.4	13.32	12.99	10.46	12.10	9.6
1993-94	15.38	15.36	14.11	13.14	14.04	12.72
1998-99	15.24	15.32	15.12	14.92	14.41	13.71

Source: Education at a Glance (1979-80 - 1998-99), Directorate of Education, Government of Maharashtra.

The data lend substantiation to trends of rising enrolment noted in the earlier section. Dalit girls, particularly since the eighties, became part of general dalit educational advance and seem to have gained from the impact of ongoing social and economic changes in the state.

Inter District Variations in Enrolment Per Cent

Regional imbalance in all developmental aspects, including the historical diffusion of schooling, has been a persistent characteristic of development in Maharashtra. It should thus be important to examine unevenness of spread in dalit education also. Table 4 below gives a district-wise distribution of the data presented in the earlier section. It shows Maharashtra's erstwhile thirty districts (today, they number 35) in terms of whether they achieved higher, lower or equal dalit enrolment percentage as compared to dalit population percentage in the year 1998-99.

TABLE 4

Dalit Girls and Dalit Boys Enrolment (in percent) as Compared to Their Percentage in Population at Various Levels of Schooling (1998-99) [30 Districts]

Schooling Level	Gender	No. of Districts by Whether Percentage Enrolment to Percent Population is		
		Equal	Lower	Higher
Lower (I - IV)	Girls	-	2	28
	Boys	2	2	26
Upper (V - VII)	Girls	2	2	26
	Boys	4	1	25
Secondary (VIII - X)	Girls	2	8	20
	Boys	2	4	24

Source: Computed from data available in Education at a Glance (1998-99), Directorate of Education, Government of Maharashtra

The Table shows that per cent enrolment of dalit girls and dalit boys surpasses population per cent at the lower primary stage in twenty-eight of the thirty districts in the year 1998-99. This suggests that erstwhile educationally backward districts from Marathwada and other pockets have in general registered quantitative progress towards the goal of universalisation of elementary education. Gadchiroli and Solapur are a cause for concern. It would also be important to highlight the districts where dalit girls have recorded notable advance. We define as "advanced" an enrolment percentage which is higher by 5 or more per cent points than population per cent. So defined, the advanced districts at the lower primary level are Mumbai, Pune, all districts of Konkan, Aurangabad, Jalna, Parbhani and Nanded of the Marathwada region, and Buldhana, Akola and Wardha and Nagpur of Vidarbha. Of these, Parbhani, Nanded, Buldhana, Akola, Nagpur and Wardha are in an advanced position at the upper primary level also.

The picture changes for the worse at the upper primary level and even more markedly at the secondary level. At the latter level, a smaller number of districts viz. twenty districts record higher enrolment than population percentage with respect to dalit girls. Eight districts which register lower enrolment percentage are Pune, Ahmednagar, Solapur, Kolhapur, Sangli of Western Maharashtra, and Beed, Osmanabad and Latur of Marathwada. The situation in the latter three is much worse than the former three. Dalit boys are behind in only four districts.

Remarkably, in Konkan and Vidarbha regions, dalit girls show advance at the secondary level also. Buldhana, Akola, Nagpur perform exceptional progress. In Marathwada, only Nanded maintains its advanced position. On probing the situation in Vidarbha even further, we find that the ratio of dalit to non-backward category girls is markedly in favour of dalit girls at all three levels. In Amravati, Akola, Yavatmal, Nagpur, Wardha and Chandrapur, dalit girls have surpassed non-dalit girls.

Gender Equity in Dalit Education

To examine the issue of gender equity/disparity within and across social groups, we examine per cent female enrolment to total enrolment in both dalit and general categories.

TABLE 5
Per cent Girls Enrolment to Total Enrolment and Dalit Girls Enrolment to Total Dalit Enrolment at Different Levels (1979-80 - 1998-99)

Year	Lower Primary (I-IV)		Upper Primary (V- VII)		Secondary (VIII-X)	
	% Girls	% Dalit Girls	% Girls	% Dalit Girls	% Girls	% Dalit Girls
1979-80	43	40	37	32	32	25
1981-82	43	41	38	33	32	27
1993-94	47	47	44	42	39	37
1998-99	47 (48)	48	46 (47)	46	43 (44)	42

Figures in parentheses represent per cent NBC girls to total NBC enrolment.

Source: Education at a Glance (1979-80 - 1998-99), Directorate of Education, Government of Maharashtra.

Table 5 indicates gender distribution within total enrolment and dalit enrolment at different levels. Schooling, it is revealed, was certainly male dominated in 1979-80. Girls of both categories were placed in a situation of great inequality, especially at the upper primary and secondary levels with dalit girls being worse off. The Table further attests to a rise in girls' representation in general and in dalit categories and at all levels of education over the twenty-year period. By 1998-99, gender inequality is reduced at all levels and girls' enrolment is more than 45 per cent of the total in both social groups. There continues, however, to be greater disparity at the secondary level where the female enrolment percentages are 43 and 42 respectively for general category and dalit girls. If one separately examines ratios for the NBC category (arrived at after subtracting all BC category pupils from the total number of pupils), the ratio improves sharply for these girls revealing greater gender disparity among dalits.

The district wise scenario of gender equity at the lower primary level shows that dalit girls' enrolment is near about or above the state average of 48 per cent in most districts. At the upper primary level also, only three districts fall markedly below the state average of 46 (viz. Nasik, Solapur and Jalna). At the secondary level however, as many as fifteen districts register a lower dalit female enrolment than the state average of 42 per cent. They include districts from Khandesh, Western Maharashtra and all the districts of Marathawada. The districts of Nasik, Solapur and Jalna continue to figure as poorest performers and show largest gender inequity. In commensuration with the advance indicated in the earlier section, in most Vidarbha districts dalit girls perform exceptionally well at the secondary level. The pattern is more or less repeated in the general population, at the primary level in terms of number of districts. However, the districts vary. At the upper primary level five districts are below average, three of them

from Marathawada. At the secondary level, all the districts of Marathawada and two each from Nasik and Pune divisions are below the state average.

Drop Out

Retention at a particular stage of education and progression between education stages are both important aspects of educational opportunity. It is difficult to compute either kind of dropout rate with any reasonable degree of accuracy for Maharashtra. Phenomena that are external and internal to schooling viz. inter-district migration, the numbers of repeaters in every class, an admission policy that admits new entrants at any level deemed "appropriate" for the pupil by local authorities, are all factors that preclude an accurate calculation. The data provided in Table 6 below is thus a very rough approximation of drop out levels. It is concerned with "continuation drop out" rates of dalit and non-backward category students. By continuation drop out rates we mean the extent to which cohorts entering levels I, V, and VIII in 1993-94 and slated to reach standards IV, VII and X respectively in 1996-97, 1995-96 and 1995-96 actually do so.

The Table reveals that dalit girls and boys have a higher level of dropout at the primary stage as compared to the NBC children. The dropout of dalit girls is lower than that of dalit boys. At the upper primary level, dropout of dalit girls is higher than dalit boys and higher than NBC girls. But strikingly at the secondary stage dalit girls' dropout is lower than that of NBC girls. The gender difference in dropout within dalits is smaller. This suggests that those dalit girls who do survive elementary school and enter the secondary, stay on till the end. For NBC girls, the secondary level appears to be the critical stage of dropout. They probably belong to the dominant yet orthodox segments of the Maratha caste-cluster, which constitutes a significant proportion of this category.

TABLE 6
Drop-out Among Dalits and NBC Population at Different Levels
(1993-94-1995-96)

Social Group	Lower Primary (I-IV)		Upper Primary (V-VII)		Secondary (VIII-X)	
	Girls	Boys	Girls	Boys	Girls	Boys
Dalit	15.87	18.30	17.38	14.14	25.88	26.40
NBC	15.41	14.60	16.31	16.95	30.45	27.29

Source: Computed from enrolment data for year 1993-94 and 1996-97. Education at a Glance, Directorate of Education, Government of Maharashtra

District-wise variations in dropout reveal that Osmanabad, Raigad and Jalna, show the highest rates of dalit girl dropout at lower and upper primary levels. At the secondary level, diverse array of districts in terms of developmental levels show very high rates of dalit boys and girls dropout. They include the educationally advanced districts of Mumbai, Pune, Jalna, Thane, Sangli, Osmanabad, Ahmednagar, Satara, Ratnagiri, Beed and Latur Wardha; Bhandara, Nagpur, Aurangabad, Akola and Kolhapur are districts with lowest dropout.

Age-Specific Attendance Rates

The census provides data on school attendance by age groups. The major limitation of this data is that information does not include the stage at which children are attending school. Nevertheless, the data cover the entire span of school going ages and also give a useful rural/urban breakdown. On the whole, age-specific attendance rates are better indicative than enrolment ratios of educational situations. Though figures for 2001 are not available, we analyse census 1991 figures to provide further insight into the schooling situation.

Table 7 provides rural and urban wise breakdown of school attendance rates for dalit and non-dalit girls and boys. The Table shows that girls' attendance rates are lower than those of boys in all age-groups in both social groups and in both urban and rural areas. For dalit girls, they range from a high of 78.2 per cent in the 10-12 years age group in urban areas to a low of 32.51 per cent in 16-17 years age-group in rural areas.

TABLE 7
Age Specific School Attendance Rates in General and Dalit Populations and Caste/Gender Disparities in Rural and Urban Maharashtra (1991)

Age Group	Rural Attendance Rates				Percentage Difference in Rural Attendance Between			
	Dalit		General		Dalit	General	General and Dalit	
	Boys	Girls	Boys	Girls	Boys & Girls	Boys & Girls	Boys	Girls
6-9	61.46	50.19	66.30	57.04	11.27	9.26	4.84	6.85
10-12	80.62	60.65	80.64	64.94	19.97	15.70	0.02	4.29
13-15	73.53	51.16	72.24	49.90	22.37	22.34	-1.29	-1.26
16-17	59.34	32.51	56.20	27.97	26.83	28.23	-3.14	-4.54
	<i>Urban Attendance Rates</i>							
6-9	67.19	64.16	75.84	73.16	3.03	2.68	8.65	9.00
10-12	85.13	78.2	88.26	84.37	6.93	2.89	3.13	6.17
13-15	80.64	69.99	81.67	75.81	10.65	5.86	1.03	5.82
16-17	67.41	52.31	68.98	58.43	15.10	10.55	1.57	6.12
	<i>Total Attendance Rates</i>							
6-9	63.59	55.39	69.11	62.83	8.21	6.94	6.17	7.44
10-12	82.27	67.45	83.48	72.00	14.83	11.48	1.20	4.55
13-15	76.06	58.52	75.75	59.51	17.53	15.84	-0.30	1.38
16-17	62.42	40.84	61.46	40.97	21.58	20.49	-0.96	0.13

Note: - Sign denotes higher dalit attendance as compared to general attendance.

Source: Census of India, 1991 Series - 14, Maharashtra, Part VIII (II) Vol. I/Part VIII (I).

Attendance rates are highest for girls of both categories in the 10-12 years age group, indicating better retention at the two elementary (lower and upper primary) stages. For rural girls, they fall significantly in the higher age groups of 13-15 years and 16-17 years, indicating withdrawal. However, it is significant to note that in rural Maharashtra,

general category girls lag behind dalit girls in school attendance in the higher age-groups. Some further support is thus lent to the earlier finding of a lower secondary stage dropout for dalit girls. Against the rural situation, urban dalit girls lag substantially behind their general category counterparts in all age groups.

The Table further shows the impressive advance of dalit boys' education not only vis-a-vis dalit girls but also boys. Rural dalit boys closely follow rural general category boys in school attendance in the 6-9 and 10-12 years age groups. They surpass the latter in the 13-15 and 16-17 years age groups. Like the girls, however urban dalit boys' attendance is lower than that of general category boys in all age groups. However, the difference is much smaller than that with respect to the girls in all categories except in the 6-9 years category.

Gender disparity, both within rural dalits and non-dalits, is very high in all age groups, especially the higher age groups indicating post-elementary withdrawal of girls. Urban gender disparity within dalits is smaller than rural, but exists at all levels. It is sizeable in the 13-15 and 16-17 years age groups. For the general category, it is sizeable in the 16-17 years age group. Thus gender constraints continue to affect participation of girls belonging to both categories especially at the higher levels of schooling.

Current Educational Levels of Dalits as Compared to OBC and Other (Non-BC) Category Women and Men

To conclude the inquiry into dalit women's educational progress, we look at educational levels achieved by dalit, OBC and 'others' (presumably non-BC population). In the context of the current non-availability of caste-wise literacy figures of census 2001, we have analysed NSSO data for the year 1999-2000 and attempted to gauge the impact of the processes of educational development in terms of final educational attainment.

Table 8 reveals that the percentage of illiterates is the highest among female dalits (viz. 49.87 %) as compared to any other sub-group. Illiteracy is also fairly substantial among OBC and "other" category women. The gap between dalit and other women seems to be narrowing at lower primary and middle levels of education. However, a much higher percentage of women from the 'other' category have attained secondary education as compared to dalit women. The 'other' category women are consistently better placed than the dalit or OBC women with respect to each level of education.

Though overall expanding school enrolments have meant increasing educational attainments for dalit women and narrowing gender disparity in terms of literacy and education, the disparity continues to be largest for dalits as compared to other categories. Dalit men are educationally way ahead of women. The gender gap in literacy is 20 per cent for dalits as compared to 18 percent for OBC and 14 percent for "others" in 1999-2000. It appears to have narrowed over time if one uses 1991 census figures as a comparative point of focus. It then stood at 29 per cent for dalits as compared to 24 per cent within the general population. When available, Census of India 2001 figures for SC/ST will confirm the trend of declining gender disparity within dalits and non-dalits.

TABLE 8
**Dalits, OBCs and Others by Educational Levels and Gender Disparity in
 Educational Levels in Maharashtra (1999-2000)**

<i>Level</i>	<i>Dalits</i>			<i>Other Backward classes</i>			<i>Others</i>		
	<i>Male</i>	<i>Female</i>	<i>- disparity</i>	<i>Male</i>	<i>Female</i>	<i>- disparity</i>	<i>Male</i>	<i>Female</i>	<i>- disparity</i>
Not Literate	29.80	49.97	-20.17	24.98	43.36	-18.38	19.95	33.97	-14.01
Literate	17.01	15.17	1.84	18.11	16.25	1.86	16.83	16.11	0.72
Primary	17.90	15.42	0.01	17.21	14.79	2.42	15.57	15.91	-0.34
Middle	19.68	11.82	8.06	19.36	15.64	3.72	18.37	15.43	2.94
Secondary	8.86	4.19	4.67	11.49	6.48	5.01	14.78	9.38	5.4
Hr. Secondary	3.34	2.02	1.32	5.01	2.07	2.94	6.45	3.98	2.47
Graduate	3.14	1.08	2.06	3.77	1.38	2.39	7.95	5.08	2.87
NR	0.27	0.33	-p	0.07	0.05	-	0.11	0.15	-
Total	100.00	100.00		100.00	100.00		100.00	100.00	

Source: NSSO 55th Round (July 1999-June 2000). NSSO, Ministry of Statistics and Programme Implementation, Government of India, 2001.

Note: - sign denotes higher female than male illiteracy/education level.

Summing Up and Explaining the Patterns of Dalit Girls' Educational Access

To sum up, we highlight patterns of school access and caste/gender disparities. The picture is one of quantitative advance, but also of constraint and contradiction. Advance is reflected in the high growth rates in dalit girls' enrolment and growing gender and dalit non-dalit parity. Obstacles are reflected in persistent gender disparity and in uneven and unequal diffusion of education based on caste, gender and region.

It is obvious that there has been an unprecedented expansion of dalit girls' access to schooling from 1979-80 to 1998-99 in Maharashtra, the hallmark of which is a quantitative spurt in enrolment post-80s. During this period, dalit girls' access to elementary levels of schooling widened dramatically. The expansion is indicated by the highest growth rates, high enrolment ratios and the rising proportion of dalit girls' representation in total girls' enrolment. Gender disparity within the dalits has substantially reduced but not eliminated and opportunities seem to be increasingly availed by dalit girls at the lower primary level. Opportunities for secondary education are also availed and steady increases noticed in the proportion of dalit girls entering and staying on in secondary school. The proportionate representation, however, is much less at the secondary level than at the primary level. There seems to be a considerable dropout of girls and dalit girls between elementary and secondary stages and also within the secondary stage leading to lower gender equity. We need better quality data to make to a firm conclusion about rates of dropout. However, attendance rates force us to exert an overall note of caution. They suggest that gender equalisation even at the elementary level is still very elusive. A large gender gap persists in rural and urban areas among dalit

and non-dalits. Lower attendance rates in higher age-groups suggest that despite increasing access, opportunities at the secondary school level are very unequal. Urban dalit girls are doing better than rural, though they are behind non-dalit urban girls. However, rural dalit girls' attendance is very significantly higher than that of rural non-dalit girls in the two higher age groups, suggesting greater progress of the former.

Following the historical pattern, there exist regional variations in dalit girls' educational progress as well as in caste/gender disparities. However, changes have also occurred in these patterns which do not suggest a neat correspondence anymore between economic development and educational development. Despite the socio-economic lag, districts of Vidarbha and Konkan and also Marathwada, have experienced impressive dalit educational development. In most districts from Vidarbha, girls have advanced and there exists gender disparity at all levels. Indeed these districts account substantially for the state's progress and have contributed to the changed picture of caste/gender educational inequality. There are districts however, including those from Vidarbha that lag behind in dalit girls' education and also display huge gender disparity. Some Marathwada districts continue to be the most backward. Thus, high rates of enrolment growth registered by dalit girls have been insufficient to wipe out historical disadvantage in some parts of Maharashtra.

As we mentioned at the outset, intra-dalit educational disparities too are a characteristic feature of Maharashtra's educational scenario. Macro-level analysis of literacy data has established that Mahars/Neo-Buddhists and Chambhars are more educationally advanced and the Mangs and many other smaller dalit castes are educationally backward (Wankhede, 2002). The Mahar (an overwhelming majority of whom are now Buddhists), Mang and Chambhar castes constitute an overwhelming proportion (80%+) of the dalits in the state. Five castes viz. Bhangi, Lingader, Khatik, Holar and Dhor, together constitute 8.42 percent. The remaining 51 castes constitute the rest (Wankhede, 2002). The neo-Buddhists and Chambhars have achieved far superior education levels than the rest. In recent times, some others, such as Dhor, Khatik and Lingader have achieved better progress. But the overall picture is of low access and schooling attainment of these most backward caste groups (Velaskar, 2005; Wankhede, 1998 and 2002; Velaskar & Wankhede, 1998). We not only need data to know the extent of exclusion and deprivation of very backward communities, we also need data to establish class-based differences in educational access within dalits. Micro studies indicate that there is ground for such variations (Wankhede, 1998).

Contemporary situation of dalit girls' schooling in the State can be summed up in terms of three trends: (1) increased access and opportunities to enrol at all levels; (2) persistence of gender disparities in retention at all levels, and sharply so at the secondary level; and (3) the continuing though changed levels of regionally unequal educational development. The cumulative impact has been the enhanced but as yet the lowest levels of literacy and education among dalit women as compared to dalit males and non-dalit females. Thus, though neither caste nor gender have remained definitive predictors of educational access today, they certainly are not irrelevant.

We now attempt an explanation of the changing patterns of caste/gender disparities in education terms, of the larger ideological, material and political factors at play, as well as the dynamics of state educational policy and action. Given the paucity of correlational explanatory or qualitative research that examines such linkages, only a broad speculative analysis is possible of facilitative and constraining factors - social, economic, ideological and cultural - that have resulted in the patterns. What factors account for the dramatic improvement in dalit girls' access to education as well as for the persistent gender disadvantage? How do we explain the changing patterns of regional imbalance in dalit girls' educational attainment?

The brief survey of educational developments in the colonial period revealed a history marked by social cleavages of caste, class, gender and tribe. In such a context, educational entry of dalit girls was directly tied to socio-political and ideological change in their caste communities. In post independence Maharashtra too, the expansion of schooling facilities did not have an immediate impact on dalit girls. Dalit boys availed these to a much greater extent. Thus, the educational benefit of great ideological impact of the dalit movement and Phule Ambedkarian ideology was largely restricted to boys. Post-Ambedkar transformatory action on dalit women's behalf had almost come to a standstill. Women and women's issues became peripheral to dalit politics. Their unchanging, inferior position as "women - dalits" was reflected in poor prospects for dalit girls' education, despite available opportunities. Caste gender barriers persisted in the form of traditional ideologies of untouchability, of early marriage and of an enforced participation in both domestic and productive caste-sexual division of labour in a context of poverty. Greater opportunity costs were involved of educating girls as compared to boys. Caste discrimination and sharply negative attitudes to girls' education from within the caste communities pervaded several regions, particularly those historically more feudal.

It is well known that the rapid socio-economic development of Maharashtra has tread a highly skewed and distorted pattern. The state's position as economically advanced hides tremendous disparities between and within its regions/districts, between its urban and rural areas, and between castes, tribal/non-tribal populations. The situation has been aggravated by the emergence of class inequalities and the persistence of poverty. Imbalanced development was also reflected in unequal geographical diffusion of educational facilities at all levels of education (Govt, of Maharashtra 1984). In the immediate post independence period, politico-economic rural interests emphasized mass education and accelerated the spread of rural education (Rosenthal, 1977). School and teacher provision and investments in education aimed to set right the imbalances and bring about a more equitable diffusion of educational facilities. Compensatory discrimination in schooling was provided albeit unsatisfactorily to the economically disadvantaged and to dalits in the form of freeships, scholarships, special classes and provision of books. Later periods witnessed a slowing down of the state impetus to the equitable distribution of primary education and an overall shift towards greater support of secondary education. In terms of special promotion of girls' education, the overall record

of Maharashtra government's educational policy and action has been mixed. Schooling has been primarily coeducational and factors known to have a direct impact on girls' education, such as accessible schools, girls' schools, women teachers and scholarships, have not received sufficient attention.

Iniquitous economic and educational development has had a multi-faceted and contradictory impact on dalits and on dalit girls' education. On the one hand, it created the context for socio-economic advance of the dalits reflected in impressive levels of urbanisation, educational development, occupational change and social mobility which was aided primarily by the policy of reservations. Akin to the experience of the higher castes, middle class formation had a favourable impact on girls' educational participation. Higher income levels, better educational climates, greater exposures and ability to pay were the material factors that have enabled girls' education. On the other hand, dalits, including those from Buddhist and Chambhar castes, have been greater victims of uneven development processes across the state and especially in some regions. The persistence of caste structure and ideology is evident in that there continue to exist marginal and socially excluded castes and sections within the dalit category. They continue to lead a poverty-stricken and oppressed existence outside the pale of village societies. Children of these lower most classes and communities largely stay away from/are excluded from education as they cannot bear the costs of educating any or all children. Dalit women are concentrated in caste/gender segmented rural and urban labour markets and gain work as cheap labour in caste occupations and informal economies. Patriarchal ideology is reinforced. It is strong in custom, law and attitude and gets further compounded by economic deprivation and social oppression. Strong counter-veiling cultural religious norms serve to curtail enrolment and school attendance and legitimise female child labour, early marriage, early withdrawal of girls from school, low aspirations, etc. Micro-studies have attested to this grim reality (Velaskar, 1999; Berntsen, undated; Apte, 2004; Chauhan, 2004).

Against this background still prevailing in certain regions the counter scenario of very impressive figures for dalit girls' enrolment in parts of the same region creates a paradoxical phenomenon. It points to the operation of other factors of significance. It is suggested here that dalit liberation ideologies and dalit politicisation have made an independent educational impact. A key factor that has positively influenced dalit girls' education as it has of boys is the profound impact of Ambedkar ideology (Velaskar, 1998). It is strongly prevalent among dalits and Buddhists in particular, through the dalit movement, especially its cultural politics and through dalit civil society. The Chambhars have been keen competitors and have made rapid strides. In regions where the dalit movement has been strong such as Marathwada and Vidarbha, various social, political and cultural organisations functioning within overarching Ambedkarian, Phule-Ambedkarian, Ambedkarian-Buddhist ideologies, have engaged in spreading the Ambedkar ideology, including his educational thought. They have worked to mould dalit society's attitudes to girls' education and where possible to engage in educational action. With the rise of the militant dalit protest in the form of Dalit Panthers in the seventies, the

movement acted as a pressure group on issues of scholarship, reservation policy and caste discrimination in educational institutions, enhancing educational motivation. The protracted agitation over the renaming of Marathwada University after Dr. Ambedkar heightened political and educational consciousness of dalit society. Despite lacking in material conditions, pro-school values have been adopted by dalit girls and their families. Dalit parents displayed considerable willingness to invest in their daughters' education and many dalit families defied costs and poverty for this purpose. In contrast, the rural Marathas continue to display a patriarchal bias and uphold early marriages and lower education levels for girls as compared to boys.

Since the eighties, the direct impact of the women's movement set favourable changes in social values and beliefs about women's "proper" place to a greater pace. This radical second phase made a widespread impact across caste and class on gender consciousness in Maharashtra (Datar, 1992). New cultural norms set by urban educated middle class women began to gain wider societal acceptance. The special significance of the women's movement to dalit women was that it radicalised gender agendas of dalit organisations and revived Phule-Ambedkarian ideology of gender. The dual impact gave rise to the phenomenon of dalit women leaders within mainstream dalit politics, dalit educated working women in rural and urban areas, and eventually to the emergence of a separate dalit women's movement. Education of dalit girls is a key agenda item and the escalation of female demand for and participation in education could well be attributed to the joint impact of dalit women's movements and the new "dalit feminist" consciousness. The gender component of Ambedkar ideology which had challenged caste-patriarchal traditionalism and placed equal emphasis on the education of girls and boys is more vigorously advocated today in order to promote greater inclusion of girls at all educational levels. Girls are increasingly utilising dalit pre-matric scholarships which were earlier consumed largely by boys (Wankhede and Velaskar, 1998).

We do not have systematic empirical studies that ascertain the impact of hierarchical ideologies and patriarchal values on schooling system and their adverse effect on dalit educational enrolment, retention and attainment. Micro level studies indicate that hierarchical organisation of schooling systems and internal caste and gender hegemonic curricular and teaching-learning processes compound the educational difficulties of disadvantaged children in general and girl children in particular. Thus, the mass inclusion that has been achieved by the state system of education is an incredibly weak inclusion (Velaskar, 2005; Berntsen, undated). Caste-patriarchal policy of the state has been evident in the poor quality of government primary schools, their inadequate presence at the secondary level, failure to adequately recruit women and dalit teachers etc. Currently, only 3.28 per cent of primary schools and 8.77 per cent of secondary schools are girls schools in Maharashtra. In an overall situation of unequal provision, middle class dalit girls alone can access "better", private schools and single-sex schools. The large majority, however, are confined to poorly equipped and far away local body schools. This is a known factor for dropout and low attendance.

The government woke up to the reality around the eighties. Schemes were launched to foster girls' education through various kinds of economic support, such as provision of free uniform, textbooks, bus fares and midday meals. In 1991, a most important policy change sought to directly redress gender inequality by making education free till Std. XII for girls. It would be reasonable to assume some positive impact of all these measures on girls' education though systematic policy evaluative studies need to be conducted. Dalit girls seem to have benefited both from general expansion and specific policies targeting dalits and girls. But it does appear that variations in schooling attainment are equally or more a consequence of liberative secular trends and Ambedkarian ideological impact on dalit communities.

Conclusion

The paper has attempted to examine the combined impact of caste, class and gender through a focus on patterns of dalit girls' access to schooling. It has been found that dalit girls were late starters but have considerably improved their educational situation. However, there is marked gender disparity within the dalits and also regional variations which results in continuous educational disadvantage for dalit girls in some pockets. The enhanced but as yet unequal educational progress of dalit girls appear to be the result of a combination of significant factors, socio-economic and cultural, related to society and state; macro socio-economic processes, in particular class formation and urbanisation; the decline yet persistence of unequal caste relations; the ideological impact of dalit and women's movements, in terms of changing values pertaining to girls' education; and an open but yet inadequate government policy and unequal state provision. The state through its caste-class-gendered institutions and policies and half-hearted remedial actions continues to function as a central agency of reproduction of inequality. A situation of overall greater gender than caste disparity in school educational attainment suggests that gender continues to be a formidable structural obstacle in accessing education. The influence of caste, however, has certainly not disappeared - it persists in the educational exclusion of several dalit castes and caste discrimination. Further, class has emerged as a fundamental category of exclusion - including a few but excluding the overwhelming majority. We need further disaggregated macro analyses by region, sub-caste, class and gender to reveal the exact patterns and their correlates. We also need micro studies that draw linkages between economic inequality, class stratification, poverty, caste disadvantage, institutional casteism, hierarchical ideology and patriarchal cultures. More conclusive explanations must await further fine-grained research that will systematically and coherently illuminate the numerous and cross cutting factors at play in determining patterns of both educational participation and deprivation of dalit girls.

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Economic Benefits of Adult Literacy Interventions*

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Abstract

This paper reviews the evidence on the economic benefits of increasing adult literacy, focussing mainly on developing countries. It introduces a framework for understanding the various ways in which literacy could impact on livelihoods, and reviews recent studies of adult literacy and basic education interventions, showing how they relate to this framework. It argues that, although numerous claims for economic benefits have been made in studies of literacy interventions, these have not generally been backed up by formal economic analysis which would enable strong conclusions to be drawn on the economic benefits. In particular, there has been a lack of attention to the opportunity costs involved in providing adult literacy, as well as a lack of rigorous measurement of the outputs and outcomes. The paper then reviews the findings of cross-country growth studies and of the microeconomic returns to education literature, and discusses how these may relate to adult literacy. Both literatures have generally focussed on formal education rather than literacy per se, and so caution is needed in drawing inferences about adult literacy. The paper emphasises that the economic returns to literacy at both the macro- and microeconomic levels appear to be highly dependent on other aspects of the economic context. However, there is evidence that literacy benefits at least some individuals, and also that the literacy of one individual can benefit others in his or her household. Finally, the paper discusses some of the conceptual shortfalls of conventional economic analysis, including the livelihoods discourse, for understanding literacy. It proposes a capabilities approach, drawing on the work of Amartya Sen, as a way forward for future research. The paper concludes by highlighting the difficulty in drawing

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specific conclusions from such a small and disparate set of research findings, and pointing to the practical need for more systematic monitoring and evaluation of literacy interventions.

Introduction

This paper reviews evidence on the economic benefits of literacy and to provide a framework for better understanding and reporting on the economic dimension of literacy in future research. It must be said at the outset that formal economics analysis has been little used in monitoring and evaluating literacy interventions. Even simple cost-effectiveness indicators of literacy outcomes are difficult to find [Burchfield et al (2002) on Bolivia, provide the best example we found of an intellectually rigorous evaluation of literacy programmes]. Programmes can look very different in terms of activities, both in qualitative form and quantitative duration. Facilitators may be paid or unpaid, materials may be locally generated or imported, and degrees of support/supervision may vary greatly, in formal economics language, there is much room for social "shadow" pricing of inputs to assess the real opportunity costs of resources used in even simple literacy interventions. No research of this rigour was found in the material consulted.

Comparative dropout rates from programmes are frequently treated as an effectiveness performance indicator, though they are not compared to differing unit costs. Dropout rates of twenty-five to thirty percent are considered internationally acceptable and this rather wide margin for dropouts is claimed to be widely achieved. Therefore, no comparative analysis was considered to be required even in the authoritative World Bank reports on this indicator (Lauglo, 2000: 24).

There appears to be very little data even at the most basic economic level: how much do literacy interventions cost per participant? Unit costs to indicate simple efficiency are patchy and usually compared to costs of primary schooling to achieve an equivalent standard. Thus two reports drawing on a range of case studies find that adult literacy programme unit costs are lower than primary schools by factors of eight or more (Comings et al, 1997: 17; Oxenham et al 1999). But, as the authors acknowledge, making such comparisons is highly controversial given the absence of data on comparative skills acquired.

A relatively recent World Bank report is willing to make the assumption that literacy interventions are self-evidently, sufficiently low cost and socio-economically valuable to merit high subsidies with no quantified economic analysis (Lauglo, 2000). But in technical economics terms, there are significant joint production problems with literacy inputs combined with other inputs, including vocational training, and also immediate economic outputs combined with social outputs, including increased school attendance by the next generation, so that identifying the precise role of the literacy component and attribution of costs and benefits are empirically impossible. "Attempts to quantify economic benefits and separating out those that derive from literacy acquired in ABE [Adult Basic Education] ... remains a challenge in the economics of education" (Lauglo, 2000, 21). But there are frequent general references to livelihoods in the literacy

literature. Therefore, the first analytical section of this paper introduces a livelihoods framework to indicate the variety of ways in which literacy interventions could help realise economic benefits. This section places the literature on adult literacy programmes within this framework to show how more careful specification can help better understand outcomes of literacy interventions. We hope this will help the reader interested in particular economic outcomes find appropriate case studies. But this exercise is necessarily somewhat speculative. There are shortfalls in the available data when it comes to covering the whole range of possibilities suggested by the livelihoods framework. There is clearly much scope for more systematic monitoring utilising the livelihoods framework.

The second and third analytical sections consider how two major parts of the economic literature on education - macroeconomic growth studies and studies of returns to education at the household level - could shed light on literacy. Two major flaws emerge: First, few studies within these approaches refer specifically to adult literacy or attempt to separate literacy conceptually from other education-related variables. Second, they mainly focus on only one of the many ways in which literacy could enhance livelihoods, namely increases in the labour productivity of individuals.

The fourth analytical section raises questions about the universalistic, functional "black box" or "autonomous" view of literacy implicit in the livelihoods and other economic approaches. The section aims to connect with the view of socially contextualised, multiple literacies. A more ethnographic discourse drawing on qualitative data stresses the need to consider the contextualised processes in which various forms of multiple literacies are acquired. The section proposes using Amartya Sen's conceptual framework combining entitlements, capabilities and functionings, as a way of assessing the economic benefits of literacy within a wider discourse on benefits in which the economics dimension is valued but not dominant.

The concluding section points to the practical need to improve the monitoring and evaluation of literacy interventions.

A Livelihoods Frameworking of Actual and Potential Literacy Impacts

A number of challenges arise in using conventional economic analysis to measure the benefits of literacy, stemming from the complexity of the linkages between literacy gains and economic development. In particular, Windham (1999) notes that:

- there may be difficulties in deciding which language(s) count for literacy and on the standard which someone has to manifest to be called literate
- a large portion of benefits of women's literacy may be unmeasured because they affect activities in the home, or work by indirectly affecting the economic activity of other household members
- similar problems with measurement exist in agriculture, other rural businesses, and parts of urban economies

- benefits may be in terms of the probability of employment; of employment in different activities; or in remuneration within a particular activity
- the jobs taken by newly literate workers may provide fewer non-monetary advantages than those taken by more highly educated workers; if only the monetary benefits are taken into account then this may over-estimate the relative benefits of literacy
- the greater ability and propensity of literate workers (relative to non-literates) to continue to invest in themselves once on the job, makes it necessary to take a long-term view when estimating the benefits.

A further complicating factor is that literacy training in practice is often intermeshed with other development programmes.

Multiple Literacies and Literacy Training as Part of Broader Development Programmes

Literacy programmes increasingly incorporate literacy within other activities such as credit and savings groups. Training in areas other than basic reading and writing skills has also often been introduced, for example, in vocational skills, health, and political awareness. Such interventions are often described in the language of "multiple literacies," emphasising that these other skills may be just as fundamental for an individual to be able to function and to improve their position in society.

The aim of incorporating literacy into wider development programmes is generally to improve the connection between programme participation and livelihoods generation. Programmes that have incorporated livelihoods skills training have generally been found to have higher attendance rates, lower drop-out rates, and have received better ratings on average from their participants than programmes that focussed solely on literacy and numeracy skills (e.g. Mwangi, 2001).

But from an analytical point of view the breadth of these programmes poses some difficulties, in that it becomes harder to distinguish which part of the programme is responsible for any measured benefits. For instance, Katahoire (2001) reports that ActionAid REFLECT programmes in Uganda led to improved agriculture, participants becoming better able to participate in business transactions, and becoming more motivated to start income generating activities - but notes that it was not clear to what extent these impacts were a result of adult literacy or of the overall 'integrated' approach of the ActionAid programmes.

Similarly, participation in literacy programmes has often been cited as bringing gains in social cooperation, which in turn improve the livelihoods of the participants. But these impacts on participants' social skills could have resulted from the social context of the programmes as well as the literacy skills gained, especially given that building social cooperation has been an explicit aim of many programmes.

These issues are important because there are likely to be trade-offs, as well as sometimes synergies, between the different activities offered. For instance, Ashe and

Parrott (2001), note that for the WEP in Nepal, a much simpler curriculum would have been needed to build the literacy skills of those who were initially completely illiterate. But with a simpler curriculum, those who already had some literacy skills would not have learned as much about running a group and managing a business.

Katahoire (2001) gives an illuminating example of literacy training being added on to an existing livelihoods programme, the Functional Adult Literacy programme started in Rukungiri, Uganda in 1996. The literacy programme was adopted by existing women's groups which engaged in income generating activities, and partly responded to particular needs identified within these activities. For instance, some of the groups offered savings and credit facilities, and in order to make use of these, participants often had to be able to understand written agreements.

The interconnectedness of the groups' literacy and other activities may explain the fact that learners were willing to invest more than the participants in other Ugandan literacy programmes; many paid for basic materials and some made contributions to the (unpaid) instructors. Learners in this programme also scored highest in comprehension and numeracy tests, and in tests of functional knowledge of issues such as HTV/AIDS and governance. Katahoire (2001) concludes that programmes that start with livelihoods and later incorporate literacy may stand a better chance of success than those that start with literacy, and have advantages in terms of organisation, management, and learners' motivation.

A further difficulty in analysing the benefits of these programmes comes from self-selection of learners: programmes offering income generating opportunities are likely to attract learners who already have strong literacy skills as well as, or instead of, those who are illiterate or semi-literate. For instance, the integrated literacy and basic education programmes examined by Burchfield et al (2002) primarily attracted learners who were already literate. And Oxenham et al (2001) acknowledge that the Rukungiri discussed in women's groups in Katahoire's (2001) paper were an exceptional example of self-selection, and that many of the women involved already had some primary schooling.

The livelihoods framework is a commonly used bridge between economics and wider development studies, and is broad enough to encompass some of these complications which are liable to be ignored in more conventional cost-benefit analysis. The framework has also recently risen in prominence amongst development agencies as a way of connecting literacy to the wider context of the lives and aspirations of poor people (e.g. DFID, 2002). In the livelihoods framework, all households are seen as utilising changing patterns of natural, produced, human, financial, and social wealth to create livelihoods:

- people can also develop their capabilities into skills whose expression over time as human wealth is both means and end to long term development;
- the relatively modified physical environment is a reservoir of natural wealth important to human well-being in itself and capable of self-development;
- human activity in the natural environment can generate produced wealth, such as equipment and cooking utensils, that has a physical life and productive potential beyond immediate human consumption;

- some wealth is held in financial forms as money or near money, such as jewellery, due to properties of liquidity and high fungibility with other forms of wealth;
- societies have collective histories of building trust, confidence and mutual security into relationships that constitute a social wealth.

The framework becomes a behavioural theory when it proposes that most people utilise their assets to reduce vulnerability and increase certainty as coping strategies seeking sustainability. Only a few can afford to take risks and seek to accumulate. The focus in most livelihoods monitoring by literacy researchers is how does a literacy gain improve vulnerable people's capabilities to manage their livelihoods in a very challenging global economy.

Literacy interventions can be linked to this framework through a matrix that considers each asset in itself and also allows considerations of paired relationships (see Table 1). The fifteen linkages opened up in the Table are sufficient to show the astonishing range of ways in which literacy can improve economic livelihoods in theory, and our lack of knowledge of how literacy interventions do this in practice.

TABLE 1

A Livelihoods Framework for Monitoring the Impact of Literacy Interventions

	Social	Financial	Produced	Natural	Human
Human	More effective and transparent principal/agent relationships	Insurance and income smoothing, higher remittances from migration	Safe and efficient use	Claims to ownership/control of natural resources plus better health	Income raising vocational skills and more cost-effective schooling of next generation
Natural	Effective natural resource user groups	Mortgage indebtedness management	Environmental sustainability	Improved fertility and lower degradation/pollution	
Produced	Group sharing/leasing/hiring arrangements	Investment financing	Technological innovation with accurate specifications		
Financial	Micro-credit group stability	Cash flow management			
Social	More effective co-operation for advocacy and fairer competition				

Each of these linkages can be examined in terms of whether the linkage works to improve livelihoods through either market force or political advocacy. The linkages also can be disaggregated for gender, social status, and disability analysis.

In the discussion of each cell in the matrix that follows, we do not attempt to separate the pure reading and writing components from other aspects of adult basic education or literacy programmes, and so some caution is needed in estimating benefits. In particular, it should not be assumed that what works in one programme can be generalised to others, since the programmes may in fact be very different in terms of both content and approach.

- *Human - Human*: The clearest link, most literacy gains improve human assets in terms of potential productivity in current activities and increasing access to new activities. In this dimension, livelihoods analysis comes close to the analysis of conventional vocational training. Oxenham et al (2002) report that across studies in several countries, there was virtual unanimity that people who had completed literacy courses tended to be more confident and more willing to take initiatives in developing their livelihoods.
- *Human - Natural*: Some literacy gains can improve advocacy capability to secure rights over natural assets - but no examples of this were found in the literature consulted for this paper. They may also improve awareness of health threats in the physical environment. Oxenham and Aoki (1999) report that studies from seven countries suggest that at least some of the graduates of basic adult education programmes change habits that affect health; and literacy may enable people to benefit from HIV/AIDS education campaigns (DFID, 2002). Comings et al (1997) report that illiterate people in Nepal had difficulty understanding messages broadcast on radio, including health-related announcements, and that women who had completed basic education courses, improved markedly in their comprehension of these messages.
- *Human - Produced*: Some literacy gains assist making safe and efficient use of equipment, other produced inputs, and consumer durables. Car mechanic apprentices on a training course in Nigeria wanted to improve their literacy skills in order to read manuals and to enhance their knowledge after the course (DFID, 2002). Participants in a programme in Senegal offering both literacy and technical training for agriculture and livestock raising were 6 percent more productive than a control group of illiterate farmers, although it cannot be determined whether this outcome was due more to the technical content or to the literacy skills (Oxenham et al, 2001).
- *Human - Financial*: Literacy gains can improve access to insurance, other income smoothing financial instruments, and strengthen channels for remittances. Diagne and Oxenham (undated) report that participants in an enterprise management training and basic education programme for women in India became less hesitant about using credit facilities to invest in income-enhancing activities (although these

authors do not attempt to analyse which aspect of the programme led to this change in attitudes or confidence).

- *Human - Social:* Literacy gains can help achieve greater equality in principal/agent social relationships by removing the advantage of the more literate party. "Not being cheated" was one of the benefits listed by participants in an evaluation of adult literacy education in Uganda (Okech et al, 1999). Oxenham (undated) argues that potential entrepreneurs can generate more employment when they are sufficiently literate and numerate to deal with the complexities of laws, regulations, negotiations and contracts in a modern economy. DFID (2002) describes the case of the women's savings and credit groups established by SOLVE, a Nepalese NGO. Though the groups were led by the small number of women with basic reading, writing and numeracy skills, introducing literacy and book keeping skills training within the groups helped to challenge differential power relations in the community and enhanced the groups' contribution to small enterprise development.
- *Natural - Natural:* Literacy gains may improve knowledge of how to improve fertility of natural assets and decrease environmental degradation/pollution - no clear examples of this were found in the literature consulted for this paper.
- *Natural - Produced:* Literacy gains may help choose more appropriate technologies to sustain the natural environment. An Integrated Pest Management training programme in Sri Lanka was enhanced when an NGO offered some of the farmers involved in the programme an opportunity to improve their 'agricultural literacy,' such as identification, measurement, record keeping and form filling skills (DFID, 2002). Participants in the Functional Adult Literacy programme in Rukungiri, Uganda, reported that the knowledge they had gained on fuel saving stoves had helped to reduce the amount of wood fuel they used (Katahoire, 2001). Archer and Cottingham (1996) give examples from projects in Bangladesh, El Salvador and Uganda, of how adult education programmes stimulated participants to reconsider and improve their uses of land, water, and crops.
- *Natural - Financial:* Literacy gains may improve capacity to make fairer mortgage contracts and manage the resulting indebtedness - no clear examples of this were found in the literature consulted for this paper.
- *Natural - Social:* Nepal has many examples of widely observed gains from greater literacy in the effective running of forest and water user groups.
- *Produced - Produced:* literacy gains may help record experiments in technological innovation as well as more accurately specify requirements for new technology. Carron et al (1989) for Kenya, and Carr-Hill et al (1991) for Tanzania, find that literacy acquired through adult literacy programmes assisted the spreading of modern agricultural techniques. In particular, Carr-Hill et al (1991) suggest that new techniques were taken up first by richer, literate farmers, but this process also generated enthusiasm for the techniques amongst poorer farmers.

- *Produced - Financial*: Literacy gains can open up seeking new ways of financing productive investment. Archer and Cottingham (1996) report an example of women in REFLECT circles writing away to raise money to have a tubewell dug.
- *Produced - Social*: Literacy gains may encourage collective approaches to investment to include group leasing and hiring arrangements. Following participation in a combined technical and literacy training programme in Senegal, a number of producer organisations emerged which were capable of marketing cotton crops, managing agricultural credit, improving community food security, and organising village stores for veterinary medicines and other supplies (Oxenham et al, 2001)
- *Financial - Financial*: Literacy gains can help a household record and carry through improved cash flow management and take advantage of saving opportunities - household budget management appears frequently as a side effect in women's literacy projects in many locations.
- *Financial - Social*: There are many examples of group micro-credit programmes being intermeshed with literacy training, such as the Women's Empowerment Programme (WEP) in Nepal described by Ashe and Parrott (2001).
- *Social - Social*: There are many examples in which literacy gains increase capabilities in social co-operation, leading to improved advocacy and/or ability to compete in markets. Diagne and Oxenham (undated) report that participants of one programme in India became more self-confident, more involved in group decision-making, and increased their involvement in community associations. Ashe and Parrott (2001) argue that the success of the WEP in the Terai of Nepal can be explained partly by the way it built on an existing strong tradition of savings and credit associations in the region. These authors also note some of the diverse ways in which the programme strengthened cooperation, not all of which related directly to the literacy gains. For instance, WEP groups exchanged visits and collaborated on joint advocacy campaigns. In fact, the greatest effect on the lives of WEP members was judged to be increased self-confidence, greater role in decision-making, and cooperation among group members, rather than increased literacy or education per se.

Comings et al (1997) found that women who had completed a nine month course, in comparison with those who had only completed the first six months of the course, were more likely to be members of community organisations such as mothers' groups. There is a question of cause and effect here: it may be that women who were more active in such organisations were more motivated or more able to complete the literacy course. Perhaps the most likely answer is, as Oxenham and Aoki (1999) suggest, that there were "interaction effects" between pre-existing aspirations and educational experience; there are likely to have been causal links in both directions.

The livelihoods framework opens up a rich array of possibilities for assessing the economic benefits of literacy gains. The framework can be seen as providing a checklist for ex ante targeting of literacy interventions and/or ex post evaluating interventions.

Macroeconomic Benefits of Literacy

Looking at possible impacts of literacy on economic growth at the level of whole countries or regions is a somewhat crude way of understanding the aggregate benefits of literacy on people's livelihoods. But a larger scale approach obviously has its own merits for policymakers and researchers, in terms, for instance, of understanding how literacy could potentially raise government revenues. This section describes the growth theories that have formed the basis for many of these studies; considers how these interact with the livelihoods framework; and briefly overviews some results from the empirical growth literature.

Economic growth theories, whether they are within the neoclassical (Solow model) tradition or the newer endogenous growth school, have widely posited an important role for education, although the exact way that education is seen as improving growth has varied. In the "augmented Solow" model of Mankiw, Romer and Weil (1990), education is incorporated as a form of capital in the production function. As with physical capital in the neoclassical model, an increase in the stock of literate adults is expected to lead to a one-off *ceteris paribus* increase in a country's *level* of output per worker, but with no long-run impact on economic *growth*. However, in the context of neoclassical economics models, the long-run may refer to a period of several decades in which all other factors adjust to the new literacy level. The economic short-run, during which the economy shifts to a new equilibrium with other factors remaining constant, is favoured as an approach by many economists seeking to inform policy making.

By way of contrast, endogenous growth theories focus on the long run, dynamic relationship between education and technological progress. A more educated population is more likely to invent (or import from other countries) improved methods of production, so that more output can be produced with the same quantity of inputs driven by a more educated population. This creates the possibility, absent from neoclassical models, of higher levels of education leading to higher growth of output per worker. A more literate population may be much better equipped to adopt new technologies¹.

Within our livelihoods framework, then, both sets of growth theories focus on the relationship between human and produced wealth. We can roughly characterise the differences by saying that human capital-augmented Solow theories place more emphasis on human wealth alone operating with a given technology, whereas endogenous growth models emphasise interactions between human and produced wealth².

¹ Foster and Rosenzweig (1996), examining India during the Green Revolution, argue that areas in which average schooling attainment was highest were most able to benefit from the introduction of new farming technologies; the returns were particularly high at primary level.

² They may also imply that literacy, by improving aggregate economic growth, could afford households better access to social wealth, although the danger here is that the growth literature privileges national support systems - for instance a country with higher per capita income can provide better social security schemes - whilst neglecting the possibility of social wealth at more local levels - which may even be harmed by the social upheaval sometimes involved in economic modernisation.

A significant empirical economics literature has grown around both these theories, and has explored other, indirect channels through which education could increase growth. Increased human capital may increase the profitability of physical capital, creating incentives for higher investment, which in turn raises growth; this can be seen as a relationship between human, produced and financial wealth. And if education lowers fertility rates, thereby increasing the size of a country's capital stock relative to its population size and reducing pressure on natural resources; this may bring natural wealth into consideration as well, but in such a long-run that empirical evidence is impossible to find.

Figure 1
Per capita GDP Growth and Growth in Literacy Rates During the 1990s



Source: UNESCO Website.
Note: Growth rates are shown as percentages.

Turning to the empirical support for these propositions, however, reveals a somewhat ambivalent pattern of results. Figure 1 shows an attempt to detect a relationship between

country-level economic growth rates, and literacy growth rates, during the 1990s. This graph suggests no clear immediate relationship. But more variables need to be brought in before concluding that literacy growth has no effect on economic growth. Various studies have attempted to do this, using regression models based both on the theories above and on more general considerations of factors likely to influence growth³. These studies include (in chronological order):

- Adelman and Morris (1968), very much in the spirit of post-WW2 modernisation, include literacy as an outcome of primary schooling in a simple, multi-variable econometric model of development processes and claim to identify a significant role for literacy operating as a pre-requisite for gaining more productive skills and attitudinal change valuing market forces.
- Barro (1991), testing the impact on growth of various human capital measures using cross-country data for 1960-85, finds that both school enrolment rates and adult literacy rates yield a significant positive impact on growth.
- Lau, Jamison and Louat (1991) find that primary education had a negative effect on growth in Africa and Middle East and North Africa, insignificant effects in South Asia and Latin America, and were only positive and significant in East Asia.
- Dasgupta and Weale (1992), using data on changes in adult literacy during 1960-80, and changes in per capita income growth during 1970-80, for the 51 poorest countries in 1970, find no significant association.⁴
- Bashir and Darrat (1994), using cross-country data from 32 Islamic developing countries during 1960-85, found that human capital, measured either as primary school enrolment or adult literacy rate, had a significant positive impact on output growth.
- Benhabib and Spiegel (1994) find no effect of human capital changes (changes in average schooling years) on growth using a neoclassical production function, but do find that the level of schooling facilitates the adoption of knowledge from abroad and the creation of domestic technologies.

³ Few of these studies have focussed directly on literacy. Rather, literacy rates have been seen as just one of several possible measures of human capital, with years of schooling or enrolments as the preferred measure. Although we hope the reader will continue to bear this in mind, we proceed to disregard this problem in what follows, relying for now on the assumptions that (i) school (especially primary school) is the main way through which literacy has been attained, and (ii) that one of the main ways in which schooling impacts on the national economy is through literacy.

⁴ However, they do find significant correlations between changes in literacy and changes in life expectancy, and between changes in life expectancy and changes in per capita income. These two relationships are suggestive of an indirect channel through which adult literacy could affect per capita income.

- Pritchett (1996), using cross-national data for 1960-85, finds that increases in average years of schooling had no positive impact on the growth of output per worker.
- Sachs and Warner (1997) test a number of measures of human capital, including adult literacy for their effect on growth and find a statistically significant S-shaped relationship with maximum effect when literacy rates are neither very low nor very high, suggesting that small improvements at very low or very high literacy rates may not have a significant impact on economic growth.
- The IALS Final Report (OECD / Statistics Canada, 2000) documents a number of other correlates of high literacy: countries with higher literacy scores had higher labour force participation; shorter work hours. Countries which have a high proportion of adults with low prose skills, and (conversely) those which have a low proportion with high prose skills, had lower GDP per capita. The higher the proportion of adults with low prose skills, and the lower the proportion with high prose skills, the lower that country's GDP per capita.
- Hanushek and Kimko (2000), criticising the failure of earlier cross-country studies to account for differences in the quality of schooling, use international tests of student achievement in mathematics and science as their indicators of labour force quality. They find the relationship between these indicators and economic growth to be consistently strong across the 31 countries for which data were available.
- Loening (2002), using time series data from Guatemala for 1950-2002, finds that increases in the average number of years of schooling had a positive and significant impact on the country's economic growth, and that this operated both through factor accumulation and through total factor productivity.
- Naude (2004), using panel data for 1970-90 for 44 African countries, and including variables on institutional quality and geographical features, finds that literacy was among the variables with a positive effect on GDP per capita growth.
- Coulombe, Tremblay and Marchand (2004), using data from the International Adult Literacy Survey (IALS), find that literacy scores had a positive and significant effect on both short-run growth and long-run levels of GDP per capita, and on labour productivity. However, their dataset is even more limited than that of Hanushek and Kimko (2000), covering only the 14 OECD countries.

Thus we are left with a rather mixed picture of the macroeconomic effects of literacy and closely associated years of schooling, especially if we try to take into account doubts about data mining and the econometrics methodology underpinning the specifications of many such regression exercises (e.g. Levine and Renelt, 1992; Temple, 2000; Hoover and Perez, 2004). Measurement errors, and the fact that educational attainment is likely to be affected by, as well as affecting, economic growth, have been particularly persistent problems (Krueger and Lindahl, 2000).

A way forward may be for the macro literature to concentrate on more tightly specified experiments. One study that suggests how this could be done is Anh and Meyer's (1999) study of joint venture investment in Vietnam which highlights the operation of a particular channel through which literacy might affect economic growth, namely through attracting foreign investors. Some of the details of the Vietnam study are given below:

Investment and Literacy in Vietnam

Low wages combined with high literacy have the potential to make Vietnam attractive as an investment destination. Anh and Meyer (1999) analyse how regional variations in investment in Vietnam related to differences in literacy rates. Jointventure investors in Vietnam during 1988-93 concentrated heavily on metropolitan centres. But controlling for income, they were also sensitive to human capital: more investment capital was committed to provinces with higher levels of literacy. The authors argue that the variation between regions in training and educational attainment means that they differ in the capacity of their labour forces to participate in the modernised sectors represented by foreign direct investors.

Holding other factors (urban versus rural location; North versus South; number of people of Chinese origin living in the area) constant, the literacy rate significantly affected the total level of investment. It also affected the level of manufacturing investment, but not the level of non-manufacturing investment. When large centres were removed from the sample, the effect of literacy rates was significant in all the three cases (total, manufacturing, and non-manufacturing).

However, these effects may have depended upon the close involvement in the investment programmes of government officials with good access to data on human resources in different regions, an aspect of investment in Vietnam that may not be readily generalised to other countries.

An important caveat to the results from this study is that it does not show that Vietnam, as a whole, has benefited from its relatively high literacy rates; it may be that literacy affected the spatial distribution, but not the total amount of foreign investment. It suggests a channel through which social wealth (in the form of knowledgeable government officers), financial wealth, produced wealth and human wealth may all interact in order to increase regional growth. But as to what extent has this investment increased the (various forms of) wealth of Vietnamese regions, and which households or individuals have been able to access this wealth, this study leaves much room for further research on the consequences of investment in literacy before we have anything like convincing evidence.

This section has concentrated on growth rates as the main indicator of economic benefits at the national level, overlooking the question of which groups benefit within each country. One way of delving deeper is to consider inequality and poverty indicators. Ahluwalia (1976), using a cross section of 62 developed and developing countries, reports that increases in national literacy rates had a positive impact on the income share

of the poorest 40 percent, whereas increases in secondary school enrolment had a beneficial impact on the income share of the middle 40 percent. Since both these effects were at the expense of the income share of the richest 20 percent, they both implied a reduction in inequality, but the increase in literacy would have the larger effect on inequality (by most measures) and poverty.

Unfortunately, more recent studies focussing on literacy and inequality are rare. OECD / Statistics Canada (2000) reports that (amongst OECD countries) higher levels of prose inequality were associated with greater inequality in the distribution of income, but admits that the causal relationship could run in either direction. Gregorio and Lee (2002), using panel data for 1960-1990 covering a broad range of countries, examine the relationships between average educational attainment, educational inequality, and income inequality. They report that as average education increases, income inequality at first worsens, and then improves. Perhaps more important for literacy research is their finding that income inequality increases with inequality of educational attainment. This suggests that literacy interventions, by pushing up educational levels amongst the least-educated groups and reducing the dispersion of educational attainment, is likely to ameliorate income inequality.

Economic Returns to Literacy

This section reviews evidence from the microeconomic rates of return to education literature that may cast light on the benefits to adult literacy. At the same time, it attempts to relate these back to the livelihoods framework presented in section one. As in the macroeconomic literature, rigorous economic studies focussing specifically on adult literacy are relatively rare. In the period of confidence in modernisation theory dating from WW2 to the early 1970s, most development economists accepted the broad proposition that literacy gains would significantly increase labour productivity in agriculture as well as prepare people for industrial employment (e.g. Hayami and Ruttan, 1970). Literacy was seen as a necessary, if insufficient, condition for modernisation and of little interest theoretically and empirically. Little effort was made to measure adult literacy and the statistical base for estimating the microeconomic impact of literacy remained weak well into the 1990s (Srinivasan, 1994: 241).

Boissiere et al (1985) provide a rigorous study of the direct impact of literacy-derived cognitive skills. Their research with 384 individuals in Kenya and Tanzania enabled them to isolate cognitive skill gains and compare their impact on earnings with those in years of schooling (a proxy for a credentialist screening factor) and differences in innate reasoning ability. They found: the direct returns to reasoning ability in the labour market are small, those to years of education are moderate, and those to literacy and numeracy - dimensions of human capital - are large. The returns to cognitive achievement are not significantly lower for manual than for nonmanual workers. (Boissiere et al, 1985: 1028).

But in order to estimate the comparative economic benefits of literacy compared with non-literacy, it is much more common to use proxies for literacy from data on schooling.

Therefore, we draw on findings concerning (in order of relevance) the first years of primary school; primary schooling generally; and schooling generally. The section also looks at ways in which adult literacy programmes may differ from schooling in terms of rates of return.

The private rate of return to a particular level of education is defined as the discount rate that equalises the present value costs, including opportunity costs, of acquiring that level of education to the individual (often contributed by their family), with the present value of the increase in future income to the individual that results from being more highly educated. Often, however, the term is used to refer simply to the proportional increase in average future salary associated with one level of education compared to a lower level.

An important distinction needs to be made between private and social rates of return: the former refer to the costs incurred and benefits enjoyed by individuals and their households in obtaining more education, whereas the latter depend upon the total costs to society of providing education and the total benefits that stem from having a more educated individual in the population. The differences between private and social rates of return are often significantly gendered with high social rates of return to educating girls, primarily due to the effects on reducing fertility and health costs.

The returns to primary education are conventionally found to be very high, whether compared to other investments, or to secondary or tertiary education. Psacharopoulos and Patrinos (2002) present international averages of 27 percent for the private returns to primary schooling and 19 percent for the social returns. For low-income countries, the private returns appear slightly lower (26 percent) while the social returns are slightly higher (21 percent) than the world averages. Bennell (1996) provides a critique of the methods used in the conventional returns to education literature, pointing out the problems caused by omitting variables such as unemployment amongst the relevant youth group and the failure to account properly for the costs of education. The result is that such studies appear to have seriously over-estimated the returns to education. Another of Bennell's criticisms focuses on the use of outdated figures, arguing that the scarcity values of education have declined quite appreciably since the 1960s and 1970s, especially in sub-Saharan Africa.

Have the returns to basic education as a proxy for adult literacy in developing countries declined?

Private economic returns to education depend crucially on the demand and supply for educated labour in the labour market. It has been suggested that the massive expansion of education systems in many developing countries is likely to have outstripped industrial growth. Connectedly, primary education is usually considered to be the most important level for agricultural productivity, whereas post-primary education may be more important for non-agricultural wage employment (Appleton and Teal, 1998). As a consequence, as countries try to move away from agricultural and towards manufacturing or services industries, the returns to primary schooling (and presumably, literacy) could

drop, as more advanced skills become relevant. In practice, the message regarding the benefits of primary education and literacy is rather ambiguous, as the studies discussed below indicate. Several other factors, including informalisation of the economy and the timing of educational expansion, may also be important.

Patrinos and Sakellariou (2004) find that the private returns to schooling in Venezuela fell up to the mid-1990s, then increased during 2002-04. They explain this by arguing that until recently, the supply of human capital in the labour market has been expanding at a faster rate than the demand for human capital. Their data show that, when the formal and informal sectors are separated, the returns to schooling in each remained roughly constant over the 1980s and 1990s; and yet the overall returns declined. This can be explained by the decline in the Venezuelan formal sector during the period: larger numbers of workers entered the informal sector, in which returns to education were lower, until the decline levelled out around 2000.

Sharma, Kumar and Meher (2002) discuss the possibility that economic liberalisation and globalisation in India, and the consequent slow-down in the expansion of engaged opportunities, especially in the organised sector, might have led to a decline in returns to education. They examine the proportions of workers employed in the regular, casual, and self-employment. Their findings show that, while workers at all educational levels were pushed out of regular employment and towards casual and self-employment during the 1980s and 1990s, illiterate individuals (who were already less likely than other groups to be in regular, and more likely to be in casual employment) were the worst affected. For instance, the proportion of illiterate rural males who were in regular employment declined from 6 percent in 1987 to 3 percent in 2000, whereas the proportion of literate rural males with less than secondary education dropped from 10 to 9 percent during the same period. Thus, although returns to primary education in India appear to have dropped during this period (Duraismy, 2000), it appears that literate individuals have continued to enjoy an advantage over illiterate individuals in the labour market, avoiding being totally pushed out of the regular employment market.

Appleton, Bigsten and Manda's (1999) study shows that properly accounting for the costs of schooling can make a large difference to the picture that emerges. Using data from Kenya for 1978-95, they find that although the wage benefits to schooling have dropped, the costs of schooling have also dropped. As a result the returns to schooling have stayed the same over this period. However, they also find that, for manufacturing employees, the returns to primary education fell dramatically from 10 percent in 1978 to only 2 percent in 1995. Returns to primary education were much higher for years 5-8 than for years 1-4, leading the authors to argue that primary education "appears to pay off mainly after Standard 4, often thought to be the minimum required for functional literacy" (p 15).

Appleton (2001) finds that, in Uganda during the 1990s, primary education did not have large effects on income via access to wage employment but did bring substantial income effects by increasing access to non-agricultural self-employment. He finds that the returns to primary education showed a marked rise during the decade: private returns

rose from 15 to 30 percent and social returns from 13 to 24 percent during 1992-2000. It is argued that the failure of Uganda to expand its education system prior to the 1990s meant that education had remained relatively scarce compared to countries like Kenya.

The conclusion may be that the returns to basic education in the wage labour market have remained relatively high in countries, such as Uganda, that have only recently seen large expansions in their education systems, but have tended to decline in countries like Kenya. We can speculate that the decline would tend to be less for self-employment (whether in agricultural or other sectors) than for wage employment, since the self-employed do not have to compete with other workers for a limited number of jobs. A more general conclusion to bear in mind is how easily the potential benefits of literacy can be swamped by macroeconomic changes. Thus, for instance, findings such as those of Burchfield et al (2002) for adult literacy programmes in Bolivia have to be interpreted in the context of the economic crisis that was affecting the country at the time that the study was conducted.

Despite these issues surrounding estimation of returns to education, Harmon, Oosterbeek and Walker's (2003) recent review concludes that the effect of education on individual earnings is unambiguously positive, and largely relative to returns on other investments. Similarly, Appleton and Teal (1998), reviewing evidence from studies incorporating previously omitted variables, such as parental background and cognitive skills, suggest that the returns to human capital as conventionally estimated may be overstated, but not by very much.

An important point to bear in mind is that income differentials may not result from differences in wages between differently educated workers; rather, it may be that individuals need a certain level of education in order to gain waged employment at all. Blunch and Verner (1999) argue that, in Ghana, functional literacy is a prerequisite to entering the labour market, and that the increased income associated with literacy can be largely explained by selection into the labour market rather than by monetary returns within it.

The returns to education literature very much falls within the human capital tradition of economic theory, and so within our framework, relates chiefly to *ceteris paribus* human wealth with other inputs assumed to be constant. When we turn from private to social returns, however, this may change. Typically, estimates of the social returns to education simply incorporate the total costs of providing education, and so are by definition lower than private returns, which exclude some of these costs. Measuring externalities - the positive benefits that the education of one individual may have for the economic situation of others - is complicated precisely because it relates to several of the endogenous livelihood-enhancing linkages referred to above. As was noted in the previous section, if literacy boosts national economic growth, then there are a number of channels through which this could improve the livelihoods of individuals, families or communities, although it is by no means assured that such improvements will appear. In the livelihoods framework, this depends on the linkages between human, natural, produced, financial, and social wealth.

Including some of these complications on the benefits side, some insights can be gained from studies of positive externalities of literacy within households, based on the idea that more literate individuals may provide literacy services to less literate people in their society; services that raise incomes of less literate members. In livelihoods language, this can be seen as a linkage between human and social wealth. Basu, Narayan and Ravallion (1999) find evidence for intrahousehold benefits of this kind, using data on wages in Bangladesh in 1995/96. Gibson (2001) finds similar externalities using data on child height-for-age in Papua New Guinea.

Oxenham (2003) provides what appears to be the only attempt to calculate the specific returns to adult literacy programmes, using the data available from three such programmes. For a programme in Indonesia, the returns to the investment - measured as the rate of growth of individual income compared to the rate of growth of the cost of training - were around 25 percent, comparing favourably to 22 percent for primary school education. Data from the Ghana National Functional Literacy Program of 1999 yielded a private rate of return of 43 percent for females and 24 percent for males, and social rates of 18 percent for females and 14 percent for males, based on differentials in earnings profiles.

Oxenham suggests that adult literacy programmes can be seen as roughly equivalent to less than full primary education. While this may be more or less true in terms of the content that gets taught, there are several reasons to think that the returns may be different. First, education imparted to children is only likely to pay off in several years time, when the child has entered the labour market⁵. If schooling is seen as an investment, then it is an extremely risky one, since families have little information on how the labour market is liable to change over the following years. Adult education, by contrast, is given to individuals who are already working. If free adult literacy programmes are available, they are in a position to make a series of relatively small investments of time in acquiring literacy skills, continuously monitoring the effects these investments have on earnings in current occupations and access to new labour markets.

Adult literacy programmes are less likely than children's schooling to involve impediments to participation, such as physical insecurity and credit constraints. On the other hand, the ability to monitor the financial gains to such programmes more easily means that there is a need to design them in ways that ensure an immediate financial pay-off in order to maintain demand for them. This is in line with the findings discussed above, suggesting that adult literacy programmes have been more successful when they were combined with contextual understandings of the operations of local labour markets.

⁵ This assumes that children do not work. In practice, schooling may increase productivity in the various productive activities in which children are involved, either within or outside the household, and schooling may increase their productivity in these activities. The finding of Basu, Narayan and Ravallion (1999) that having at least one literate person in a household also raises earnings for other household members, even if the literate person is a child, suggest that child literacy may also have productive value for the household in the short term.

A second difference between schooling and adult literacy programmes lies in the relative opportunity costs of attending them. If adults can earn more than children, then the opportunity costs of spending an hour not working is higher for adult literacy programmes. The costs could be lowered, however, if the programmes are scheduled to fit in with the students' working lives (normally a key feature of non-formal education programmes). Opportunity costs are also likely to be lower if the rates of unemployment and under-employment amongst illiterate adults are high.

These aspects of adult literacy programmes make it clear that, whilst the use of rates of return analysis to decide public spending priorities may be problematic, it does provide a framework within which to consider likely implications of the design of any educational programme for the private demand for it.

Blunch and Portner's (2004) studied the effects of participation in adult literacy programmes in Ghana on household consumption. This study does not attempt to calculate returns as such, but is nevertheless relevant, not least because it provides some insights into the ways that the interactions of household members with different levels of education may determine consumption levels.

Literacy and Household Consumption in Ghana

Blunch and Portner (2004) examine the effects of participation in adult literacy programmes in Ghana on household consumption, using data covering rural areas from a 1998/99 national survey. It finds that, in general, consumption was no higher among households in which one member had participated in an adult literacy programme. But when the focus was restricted to those households in which no member had attended formal education, the effect of having participated in adult literacy programmes became positive and significant. Their results suggest that per capita consumption was 57 percent higher in participating households, holding other relevant variables constant (*our calculation, based on Table 4 in Blunch and Portner, 2004*).

The authors of this study argue that it points towards the potential importance of adult literacy programmes for those sections of the population which have not participated in the formal education system. Considering why the programmes did not appear to affect consumption in general, they put forth three possible explanations:

- (i) That the skills taught in the programmes may not have had very high returns in the rural areas which their study examined.
- (ii) The income generating activities promoted in the programmes may have been of a poor quality, or may have been suggested to so many people that the market prices attached to the activities in question dropped.
- (iii) Participants' consumption may have dropped because of foregone earnings during programme participation or because their diverting resources towards the new income generating activities in the hope of deriving a larger benefit later.

The fact that participation in the programmes did affect consumption in households with no formally educated members, can be explained in terms of household members providing literacy services to each other (Blunch and Portner argue), and it is consistent with Joliffe's (2002) finding that only the most educated household member's level of education matters for income generation in Ghana.

If (for most households) there were no consumption benefits to the literacy programmes, then why were so many individuals willing to invest time and other resources in participating? The answer may well lie in the non-economic benefits discussed in the other sections of this paper. However, Blunch and Portner also suggest that participation in adult literacy programmes could have increased the bargaining power of participants within their households. This idea finds some support in the findings from other studies of literacy programmes (e.g. Ashe and Parrot, 2001) that of participants having increased decision-making power after taking part in literacy programmes.

Finally, there is a need to consider in which languages an adult is literate. The debate on whether there should be literacy tests for immigrants in the dominant language of their destination country can be dated back to pre-WW 1 debates in the *American Economic Review* (Fairchild, 1912; Ross and Cudmore, 1912). More recently, Carnevale et al (2001) find that reading and writing skills in English raise wage rates significantly after speaking and listening capabilities in English have been achieved, though speaking and listening skill gains do have an immediate substantial effect without literacy in English. This takes us naturally to consideration of social literacies and more general capabilities.

A Capabilities Approach to the Economics of Social Literacy

In this final section, we make an effort to connect analysis of the economic benefits of literacy gains to the wider discourse on literacy. Most of the argument so far has treated literacy as an objectively observable, universal "banking" knowledge distinguished clearly from a state of illiteracy. Also the process of moving from illiteracy to literacy has been treated as a technically ordained "black box". This is consistent with conventions in economics ontology and epistemology in which physical inputs are converted into physical outputs, using an engineering technology leaving the economist to assign monetary values to the inputs and outputs. The economist then has no need to understand the engineering process.

But the more ethnographic discourse on literacy distinguishes between the "autonomy" model of literacy (which has the universalistic, engineering characteristics very attractive to mainstream economics) and a "social" model of literacy that is very concerned with both context and process in which various forms of multiple literacies are acquired [for an excellent review of the differences, see Street (undated)]. Yates's (1997) critique of the discourses employed by donors in the context of the functional literacy programme in Ghana highlights some of the problems inherent in the technocratic paradigm. The question we wish to reflect upon here is what conceptual framework might underpin an economics of multiple social literacies.

Amartya Sen's conceptual framework combining entitlements, capabilities and functionings is a candidate, though not without its critics (e.g. Srinivasan, 1994). The framework originated in research into the social causes of famines in the 1970s, and blossomed into a general approach to human development in the 1980s and 1990s (see Gasper and Cameron, 2000). The language of capabilities is entering the general education discourse primarily through feminist and disability research; recent applications of it include a study of functional adult literacy and empowerment of women in Turkey (Kagitcibasi, Goksen and Gulgoz, 2005). This language connects with the more commonly used educational concepts of access and exclusion, though through a critique of the complacency implied in an "inclusion" approach in that it treats mainstream education as unproblematically desirable. The capabilities approach also links closely to the livelihoods framework, though again critically in the tendency for the livelihoods framework to emphasise technical skills without considering the social context in which they have to be exercised.

So what light does the capabilities approach, cross-cutting with the livelihoods framework, throw on the economics dimension of social literacies and what indicators could assist monitoring the economic benefits from adult literacy programmes?

Entitlements

All people possess sets of rights and responsibilities that entitle them and others to portfolios of resources. Some entitlements rest upon individual property rights recognised in law, others may be received as public services (e.g. education), may be guaranteed as access to common or pooled property by social conventions or membership organisations (e.g. forest or water user groups), and some may arise through trade and the actions of market forces. There are clear parallels here with the asset profile in the livelihoods framework. For vulnerable people, any entitlement may be enhanced or gained by improvement in an appropriate form of literacy. Multiple interconnected literacies in the law, advocacy for improved services, running of membership organisations, and dealing with merchants and/or money lenders, may all reduce vulnerability and improve economic well-being.

Capabilities

Capabilities are enhanced when people gain skills they can use to employ their entitlements in new ways. Gains in factual, "banking" knowledge induced by joint literacy/vocational education programmes may enhance capabilities, though only in the weak sense of additional technical skills. All successful literacy programmes inevitably improve general skills in information collection, organisation, and storage. They may also have implications for modifying how people relate to each other in logical and emotional ways as aspects of communicative actions. Literacy interventions for adults are almost always group activities, partially as a matter of simple economic unit cost efficiency. Many literacy interventions (e.g. ActionAid's REFLECT) make an explicit social virtue

out of creating groups and emphasise improving social relationship capabilities. Other interventions passively accept the economic logic and institute a didactic, class-room style, familiar from conventional schooling and do little in really increasing capabilities. The degree to which an explicit objective is to improve interactive capabilities may have implications for the types of economic activities that a literacy intervention may stimulate. For instance, there are widespread associations between literacy interventions and Grameen-style micro-credit group formation on a global scale. These interventions need to be monitored in terms of how far these have created new collective economic capabilities, using new literacy skills actively or merely acted as account-keeping, disciplining mechanisms to ensure higher rates of repayment. The World Bank also acknowledges that an open, interactive pedagogic style is of indirect economic benefit in reducing poverty and that individual economic capabilities are inextricably intermeshed with social deliberative capabilities (Lauglo, 2000, 16).

Functionings

Functionings in the Sen framework are what people actually decide to achieve by using their time, energy and capabilities. They are revealed in the activities that we empirically observe to calculate rates of return to a literacy gain or to describe a change in livelihood profile arising from a literacy intervention. The links between capabilities and functionings reveal the real choices and freedoms that people possess. A literacy intervention may increase the range of its participants' capabilities and be judged as successful in this respect, but the participants may feel they have no choice but to continue with the same pattern of functionings. There is an issue of agency involved, with a very strong social dimension. Feminist research has identified stages in empowerment that include self-valuation, valuation in immediate, familial/clan relationships, activity in more formal organisations, and collective achievements in structural change. A literacy programme is arguably incomplete as a socio-economic intervention if it does not assist its participants through all these stages and finally improve their foundational entitlement profiles. The economics of literacy should be very much concerned with processes by which people negotiate with powerful "outsiders" and claim entitlements to resources, and see a responsibility for literacy interventions in building appropriate deliberative literacy capabilities and facilitating the development of organisational forms in which those acquired literacy skills can be expressed.

Conclusion

In this paper, we have analysed the limited data available in four different economics frameworks - livelihoods, a macroeconomics overview, microeconomics rates of return, and capabilities. In all the four cases, the information available has weaknesses. Data on livelihood changes is very patchy in terms of revealing precise relationships between literacy changes and livelihood outcomes and making generalisations. Comparability between definitions of variables and causality between them raise questions at the macro-

level. The assumptions surrounding interpretation of cross-sectional data as longitudinal data in rate of return analysis and the use of data on children and schooling as proxies for adult rates of return are highly questionable at the microeconomic level. And the capabilities approach, though arguably much more compatible with state-of-the-art conceptualisations on multiple literacies, has virtually no dedicated data base.

Throughout this paper, we have been very conscious of the limited quantity and quality of data available on the economic benefits of literacy interventions. As the monitoring and evaluation system develops for the current FAO/UNESCO global initiative in Education for Rural People (www.fao.org/sd/erp) with its very impressive network of organisations, we hope that it will map economic linkages of efforts in increasing literacy, using both livelihoods and capabilities frameworks systematically. This would mean improved monitoring of the adult literacy dimension of EFA and immensely improving the evidence base for future analysis.

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Public Education Expenditure in Karnataka Alternative Databases and Empirical Implications

M. R. Narayana*

Abstract

This paper describes the sources, characteristics and limitations of published databases on public expenditure on education in Karnataka State. Magnitudes of computed public education expenditure by the national and state level approaches are compared between the sources and years, and a plausible approach is recommended. Empirical implications of the computed public education expenditure are derived for estimation of public expenditure ratio, social allocation ratio and unit cost of public education. Specific measures for improving existing databases are recommended, especially in the context of decentralized public expenditure programmes and growth of private sector education. Subject to the availability of comparable data, the analyses and implications for Karnataka State are applicable to other states in India.

Introduction

Public education expenditure for current consumption and long-term investment at sub-national levels (e.g. State, District, Taluk/Block and Village) is important for development of all types and levels of education in India. From the viewpoint of policy analysis, sub-national public education expenditure is essential for (a) construction of public expenditure indices, as measures of public efforts and commitment for education sector in particular and human development in general;¹ (b) estimation of State Government's budgetary subsidy to different levels and types of education [Narayana (2001)]; (c) preparation of medium term fiscal plans at the state and departmental levels to attain fiscally sustainable development [Government of Karnataka (2004) and Government of Karnataka (2003a)]; and (d) estimation of resource requirements to achieve education policy targets, as evident, for instance, in the World Bank's assessment of state level financial resources for primary education [World Bank (2002) and World Bank (1997)]. Thus, sub-national public education expenditure is a foundation for

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decentralised planning and management of manpower development and human capital formation in India.

Studies on databases in education finance focus on national level analysis. For instance, Tilak and Panchamukhi (2001) provide a detailed description of existing national level databases on education (including educational finance) in India. The study underlines the need for sub-national databases on education "in view of the importance being given to decentralized planning in development" (p.417). To my knowledge, a detailed analysis and implications of sub-national databases on public education expenditure is a policy gap. This paper is an attempt to fill in this gap in the context of India's Karnataka State².

This paper describes the sources, characteristics and limitations of published databases for estimation/computation of public education expenditure with reference to Karnataka State. The description aims to establish comparability of expenditure data between the sources and to derive empirical implications of estimated/computed public education expenditure data for construction of education expenditure indices and unit cost of public education. Applicability of these descriptions, analyses and implications for Karnataka State to other States is emphasized, subject to the availability of comparable public education expenditure data in other States.

Rest of the paper is organised as follows. Section 2 describes the sources, characteristics and limitations of available basic data on public education expenditure in Karnataka State. Section 3 outlines the approaches for computation of public education expenditure in Karnataka State. In section 4, comparability and empirical implications of computed public education expenditure between approaches is established. Main conclusions and implications are presented in section 5.

Sources of Basic Data on Public Education Expenditure

Karnataka is a part of Indian federation, and education is in the concurrent list of the Indian constitution. Hence, all the levels of the Government, viz., Central Government, State Government, and local governments (e.g. urban and rural local bodies, and district, taluk and village panchayats) are contributory to public expenditure on education sector. Three sources of the basic data on public education expenditure (i.e. expenditure from within the budgets of the governments) in these levels of government are: (a) Budget Papers of the State Government, (b) Comptroller and Auditor General of India, and (c) Department of Secondary and Higher Education of the Government of India.

Budget Papers of the State Government

Detailed estimate of expenditure, details of provisions for plan schemes/expenditure, budget allotment for Zilla Panchayat, and summary of demand for grants and charged appropriations, are the select Budget Papers for expenditure data on education. The characteristics and limitations of these data are highlighted below.

Detailed Estimate of Expenditure

This Budget Paper provides with total amount of expenditure by budget estimate for the current year, budget and revised estimate for the previous year, and accounts/actual for the year before last. These data are presented by revenue and capital expenditure and by plan and non-plan expenditure. All expenditures are presented by specified budget heads and at the State level of aggregation, except the assistance to local bodies. Assistance to local bodies is presented by the Zilla Panchayat (ZP) and Taluk Panchayat (TP). These data are aggregate of revenue and capital expenditure under plan and non-plan expenditure. Expenditure on general and technical education is given in Volume III, medical education in Volume IV and agricultural education in Volume VI. In this Budget Paper, revenue and capital expenditure are not separately reported at the district level for ZP and TP. Further, no capital expenditure data on primary and secondary education include high school (lower secondary) as they are routed through the budget for the ZP and TP. Hence, the capital expenditure on secondary education is related to pre-university and vocational education.

Details of Provisions for Plan Schemes/Expenditure

This Budget Paper provides with details of plan expenditure by State and Central Government schemes. The Central Government programmes include Central Plan Schemes and Centrally Sponsored Schemes. All expenditure data are given (a) by budget estimate for the current year, budget and revised estimate for the previous year, and accounts/actual for the year before last; and (b) at the State level of aggregation. Although, no data is reported by revenue and capital expenditure, they are obtainable from the relevant budget heads of the schemes.

Budget Allotment for Zilla Panchayat (Vol. I and Vol. II)

This Budget Paper (popularly called link document) is the only sources of data on district-wise budget allocation. The allocation is presented by plan (i.e. Central and State Plan) and non-plan expenditure, and by revenue and capital expenditure, under the ZP and TP schemes. All expenditure data are related to budget estimates. Hence, no data on revised estimates and accounts/actual is reported.

Summary of Demands for Grants and Charged Appropriations

This Budget Paper presents the demand for grants (net expenditure plus recoveries and transfers) by budget heads for the current fiscal year (also called original demand for grants). These demands for grants constitute the sum of plan and non-plan budget estimates.

Comptroller and Auditor General of India (CAGI)

Annual accounts data on public education expenditure are included in the Appropriation Accounts and Finance Accounts by the CAGI.

Appropriation Accounts provide with details on the original and supplementary demand, or total demand for grants, and the actual expenditure (e.g. primary, secondary and vocational education comes under grant No.10). Further, the reasons for the difference between total appropriation and actual expenditure (in terms of surplus and savings), are reported by specified budget heads.

Finance Accounts provide with (i) actual expenditure by (a) plan, non-plan and total cumulative expenditure for the year on revenue account, and (b) plan, non-plan and total cumulative expenditure up to the end of year on capital account; and (ii) loans and advances by opening balance, receipts and disbursements and closing balance of the year.

Department of Secondary and Higher Education of Government of India

The Department of Secondary and Higher Education, under the Union Ministry of Human Resource Development, publishes the Analysis of Budgeted Expenditure on Education [e.g. Government of India (2003a)]. It includes budgeted expenditure on education at the State level of disaggregation. The data separates the expenditure by Education Department and other or non-education departments (e.g. Social Welfare Department on incentives, and Labour Department on training) by (a) plan and non-plan expenditure, (b) revenue and capital expenditure, and (c) Central and State Government expenditure'. Thus, the document is most useful to highlight the contribution of Education Department and other/non-education departments of Central and State Governments.

Approaches to Computation of Public Education Expenditure

Using the basic data on public expenditure on education from the above sources, measures of aggregate and disaggregate public education expenditure in the State are computed at the national and State level. These measures are presented under the following approaches.

Approaches at the National Level

At the national level, the following two computational approaches may be distinguished: (1) economic-cum-purpose classification of expenditure by the Central Statistical Organisation (CSO), and (2) total expenditure on education by Education Department and other departments by the Government of India's Department of Secondary and Higher Education (DSHE).

CSO's Approach

According to the CSO (1989), classification of government expenditure by economic characteristics, such as, current expenditure, capital formation and loans, is called economic classification. Under purpose classification, expenditure is classified by the purpose it serves, such as, education and health. The combined classification is called economic-cum-purpose classification of expenditure. It is composed of general government expenditure, covering all bodies, departments and establishments of the Central and State governments; and district boards, sub-divisional offices, municipalities, village panchayat and other local authorities'.

Total education expenditure above is divided into current expenditure and capital expenditure, including loans and advances. Current expenditure is the sum of consumption expenditure, current transfer to local bodies and other current transfers. Capital expenditure is the sum of gross fixed capital formation, changes in stock, net investment in stock, capital transfer to local bodies, loans and advances to local bodies, loans and advances to domestic sector, and other capital transfers.

DSHE's Approach

Using the budgeted expenditure data, aggregate public education expenditure is computed on revenue account (hence, capital expenditure, including loans and advances are excluded) as the sum of expenditure by education and non-education departments within the State. Hence, the contribution of the Central Government through the budget of the Education and other departments is not added while computing the State level aggregate public education expenditure. This measure of aggregate public education expenditure is used to find out its share in total public expenditure and income of the State [e.g. Government of India (2003b)].

Approaches at the State Level

At the State level, public education expenditure is computed by two approaches: (a) first, economic-cum-purpose classification of expenditure by the Directorate of Economics and Statistics (DES) of the Government of Karnataka; and (b) size and pattern of allocation of total expenditure by types of and levels of education within the Education Department.

DES Approach

Since 1986-87, the DES has been bringing out an economic-cum-purpose classification of the Karnataka Government Budget [e.g. Government of Karnataka 2003b)]. This is based on the CSO's methodology above'. Thus, computed public education expenditure (at the State level of aggregation, however) is presented in the same format as in the National Accounts Statistics [e.g. Statement 35 in the National Accounts Statistics 2004 in Government of India (2004)].

Department of Education

No attempt is made to consolidate total/aggregate expenditure on education (i.e. by Education Department and other departments) in Karnataka State. This is evident, for instance, in the Annual Report of the Education Department [e.g. Government of Karnataka (2003c)]. This is in contrast with consolidation of total education expenditure data at the national and state level by the DSHE. One may argue that non-consolidation of education expenditure data at the State level is to avoid duplication of publication of similar data at the national level. In reality, this is not correct for the reason that national level data do not contain, for instance, State level contribution of non-education (or other) ministries and departments to education expenditure⁷.

Since recently, a *Medium Term Fiscal Plan* (MTFP) is prepared by the Government of Karnataka. At the departmental level, for instance, the Department of Primary and Secondary Education has been preparing the MTFP since 2002-03 [Government of Karnataka (2003a)]. This Plan, among others, provides with a reorganisation of revenue and capital expenditure on education in the State's Budget Papers by four major categories: Employee Related, Transfer Payment, Maintenance and Supplies, and Services. Each of these categories is sub-divided into State Sector, Zilla Panchayat Sector and Taluk Panchayat Sector. These categories and sub-categories are given by high schools, PU education, and vocational education in secondary education. Further, the departmental MTFP forecasts the plan and non-plan expenditure over next three years by these four major categories, given the medium term education goals and targets in the State.

Comparability and Implications of Computed Public Education Expenditure

National and State level approaches use different basic data to compute public education expenditure (CPEE). Hence, the magnitude of CPEE may differ between the approaches. This difference measures the extent of non-comparability of CPEE between the approaches. In what follows, these differences are computed and their empirical implications are derived.

Comparability of Computed Public Education Expenditure

Table 1 presents the magnitude of the CPEE by different approaches (databases). The essential differences between the databases are as follows:

- [Expenditure by Education Department in Budget Papers of Government of Karnataka (GOK)] minus [Expenditure by Education Department as reported in DSHE] is equal to Central Government's education expenditure on Education Department in the State (i.e. in the form of Central Plan Schemes and Centrally Sponsored Schemes).
- (Expenditure by Education Department in the Budget Paper of the GOK and Other Departments as reported in DSHE) minus (Expenditure by Education

Department and other departments as reported in DSHE) is equal to Central Government's total expenditure on education in the State.

- (Economic-cum-purpose classification of current expenditure on education by DES of GOK) minus (Education expenditure by all types and levels of education in Budget Papers of GOK^o) is equal to the sum of Central and State Governments' expenditure on other departments (excluding expenditure on medical and agricultural education within the State budget, however) in the State.
- (Economic-cum-purpose classification of current expenditure on education by DES of GOK) minus (education expenditure by all types and levels of education in Budget Papers of GOK) plus (Expenditure by other departments as reported in DSHE) is equal to the Central Government's expenditure on other departments in the State^o

The CPEE based on the economic-cum-purpose classification of current expenditure on education by DES is the most comprehensive and highest CPEE in the State. The value of the CPEE is equal to Rs.387288 lakh in 2000-01, Rs.404334 lakh in 2001-02, and Rs.457115 lakh in 2002-03. A close conformity in CPEE is evident when it is based on (a) education expenditure by all types and levels of education in Budget Papers of Government of Karnataka, and (b) expenditure by Education Department and other departments as reported in the DSHE.

The CPEE by using expenditure data of the Education Department of the GOK is equal to Rs.341157.9 lakh in 2000-01, Rs.337844.5 lakh in 2001-02, and Rs.378014.5 lakh in 2002-03. This CPEE is lower than the CPEE by using other databases, except the CPEE based on the expenditure by Education Department as reported in DSHE. Thus, the ratio of CPEE by using expenditure of the Education Department of the GOK to the CPEE by using all other databases is less than unity, except by using expenditure of Education Department as reported in DSHE. The ratio being less (or more) than unity implies that the CPEE based on expenditure of the Education Department of the GOK is an underestimation (or overestimation) as compared to the CPEE based on other databases.

Empirical Implications of Computed Public Education Expenditure

Public education expenditure is an important variable for estimation of Public Expenditure Ratio for education (PERE) and Social Allocation Ratio for Education (SARE). Public Education expenditure as a percentage of total State income (or total public expenditure) is called PERE (or SARE). These ratios show the extent of public commitment and priority in expenditure for education. In addition, public education expenditure is essential to estimate the unit of cost of public education (or public education expenditure per person or per pupil) in the State.

Table 2 presents the empirical implications of CPEE for the estimation of PERE, SARE as well as for the estimation of per person and per pupil education expenditure in the State from 2000-01 to 2002-03. In all the years, PERE and SARE show remarkable

differences between the CPEE. In the same way, per person and per student expenditure show remarkable differences between the CPEE. Thus, PERE, SARE and unit cost of public education are sensitive to the choice of CPEE in the State.

Conclusions and Implications

This paper has described the sources, characteristics, and limitations of national and State level data on public education expenditure in Karnataka State. Using these databases, public education expenditure is computed by different approaches for the purpose of establishing the comparability of magnitude of CPEE as well as for suggesting a plausible measure of CPEE. Empirical implications of the CPEE are derived for estimation of public expenditure ratio, social allocation ratio, and per person and per student public education expenditure.

The analysis in this paper leads to the following conclusions.

- (i) Differences in CPEE are accountable for unique components of expenditure by the Education Department of Government of Karnataka, DES of the Government expenditure, and DSHE of Government of India. Hence, in general, the CPEE by these sources is not comparable or cannot be used interchangeably for policy purposes.
- (ii) The CPEE based on expenditure data of the Education Department of the Government of Karnataka is an underestimate of the CPEE based on DES or DSHE's expenditure data by Education and Other Departments.
- (iii) The CPEE by using the expenditure data of (a) Education Department in the Budget Paper of the Government of Karnataka and Other Departments in Analysis of Budget Expenditure by DSHE of the Government of India and (b) Education Department and Other Departments in Analysis of Budget Expenditure by DSHE of the Government of India is comparable.
- (iv) The economic-cum-purpose classification of current expenditure on education by DES is the most comprehensive CPEE in the State. Thus, of all the approaches, the DES approach is preferable to other approaches for computation of public education expenditure in the State, especially for estimation of PERE, SARE, and unit cost of public education in the State.

From the viewpoint of policy, the descriptions and analyses of this paper imply the following.

First, with the advent of decentralised planning, sub-state level units (e.g. ZP and TP) have become the major sources of public education expenditure, especially for primary and secondary education. Revised and actual/accounts expenditure data by these units are not consolidated at the district level, either by the Department of Rural Development and Panchayati Raj or by the Department of Primary and Secondary Education. This consolidation is essential for all policy analyses, such as, construction of public expenditure and social allocation ratios and unit cost of public education at the sub-state level.

Second, Education Department of the Government of Karnataka should consolidate public education expenditure by individual non-education ministries and departments within their respective States. This shall be useful in estimation of magnitude and extent of public efforts and commitment to education in the State. If permissible, the results of this estimation should be reported in the Annual Report of the Department.

Third, private education expenditure by institutions, households and corporate bodies is important to assess the contribution of private investment in education. At the same time, the data is useful to redefine the role and size of public education expenditure in the context of meeting with total financial requirements for the entire education sector. Thus, collection of regular data on private education expenditure is a policy imperative. However, the task of collection and management of private sector education data shall have to involve both government and private sector as a form of public-private partnership programme.

Fourth, subject to the availability of comparable data, the framework for description and analysis of this paper can be applied for other States in India. Such applications shall establish the generality of conclusions and implications of this paper and shall be contributory for comparative studies in education finance in the Indian federation.

Notes

1. This is evident, for instance, in construction of State level public expenditure ratio, development expenditure ratio, social sector expenditure ratio and education expenditure ratio in India's national human development report in 2001 [Government of India (2002)].
2. Emphasis on public expenditure does not mean that private education expenditure by institutional, households and corporate bodies is negligible or unimportant. In fact, lack of data is a major limitation for analysis of private education expenditure in India. This is confirmed for 1990s, for instance, by Prasad and Govinda Rao (2002): "No specific details are available about the expenditure incurred by the private sector in unaided institutions. No published studies are available about the financial management of individual institutions or organisations in the private sector" (p.87). However, for 1980's, Panchamukhi's study on private institutional expenditure on education, as summarised in Chapter IV (B) in Panchamukhi (2004), is remarkable. More recently, the National Statistical Commission [Government of India (2001)] has highlighted these data problems in the following terms: "At present, hardly any data are available on educational expenditure for the different levels and types of education except from the budget and expenditure statements of the Government. Data on income and expenditure of the private institutions are particularly lacking" [para 9.5.15 (b)]. Thus, the Report has recommended, among others, for inclusion of expenditure incurred by educational institutions (e.g. to estimate unit cost for each level and type of education) in periodical surveys/studies conducted/to be conducted by institutions, such as National Council of Education Research and Training (NSERT) and University Grants Commission (UGC).
3. For instance, all revenue expenditure for primary (or secondary) education is under budget head: 2202-01 (or 2202-02) and all capital expenditure is under 4202-01 (or 4202-02).

4. In total, education expenditure (i.e. on education, and formal and informal training) by other departments includes 6 departments, and 27 ministries of the Central Government. This list is available in Statement No.(1) in Government of India (2003a: p.4). At the State level, education expenditure by other departments is not given by individual departments and ministries.
5. The details of these compositions are as follows. First, expenditure on administration, regulation and research. This includes (a) administration of ministries or central departments of education i.e., expenditure of the Department of Education, Directorate of Education, etc; (b) general regulation and promotion of school system, institutions of higher learning and adult and other educational activities i.e., expenditure on Board of Higher Secondary Education and UGC; and (c) research into objectives, organisation, administration and methodology of all types of education i.e., grants to NCERT and UGC to study educational system, expenditure on production of textbooks, collection of educational statistics, etc. Second, expenditure on universities, schools and other educational facilities. This includes: (i) educational services i.e., all types of expenditure for primary and secondary schools, colleges, universities, technical training institutes like medical colleges and schools (including attached hospitals), nursing colleges/schools, veterinary colleges/schools, engineering colleges, art schools/colleges, music colleges and schools, etc. This includes all expenditure on education for backward classes, adult education, education for displaced persons', non-custodians type schools for deaf, dumb and blind. Items of expenditure like introduction of Hindi in universities, development of Sanskrit education, Central Institute of Fisheries Education, Marine Engineering Training School etc, are also included, (ii) Scholarships for education and research i.e., all types of scholarships for study in schools, colleges, universities or for research in any subject in India or abroad including payment of maintenance allowances for students doing research or study, (iii) Loans or grants for education i.e. grant to universities, colleges, schools, and educational institutions or to individuals, (iv) Subsidiary educational services i.e. expenditure for mid-day meals for students, free transport to attend schools, colleges etc., or free supply of textbooks or any other facilities to attract attendance in schools.
6. In particular, the DES compiles education expenditure data from Education Department and other departments under the following 10 major budget heads: 2059 (Public Works); 2202 (General Education); 2203 (Technical Eduaaation); 2210 (Medical and Public Health); 2211 (Family Welfare); 2225 (Welfare of Scheduled Castes, Scheduled Tribes, and Other Backward Classes); ' 2230 (Labour and Employment); 2235 (Social Security and Welfare); 2250 (Other Social Services); and 2215 (Agricultural Research and Education). These expenditures are inclusive of Central Government's expenditure through the State budget.
7. Statistical Unit in the Department of Education of the Union Ministry of Human Resource Development is the nodal agency for collection, compilation, processing and dissemination of educational statistics through annual publications, such as, Selected Educational Statistics and Analysis of Budgeted Expenditure. The required national and State level data in these publications are collected in collaboration with the States' educational departments through ES (Education Statistics) series of forms. For details, see Chapter 4 in Government of India (2003c).
8. Types of education is equal to general, technical, medical and agricultural education, and levels of education is equal to primary, secondary and tertiary levels of education in the State.

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9. In fact, CSO allocates the Gross State Domestic Product (GSDP) of the Central Government administration to the States, including Karnataka, for incorporation in their GSDP estimates, but not the entire functional-cum-purpose classification. An alternative is to use the same ratio of GSDP Central Government (Karnataka portion) to GDP of Central Government administration, and apply the ratio to the Central Government's functional-cum-purpose classification. This alternative is a partial measure to account for Central Government's expenditure in the State under the CSO's methodology. Thus, the measure is not implemented in this paper.

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Educational Attainment in India Trends, Patterns and Policy Issues*

Dipa Mukherjee"

Abstract

Education is the basic requirement and the 'Fundamental Right' of the citizens of a nation. While higher education is important, the elementary education system serves as the base over which the super-structure of the whole education system is built. This paper tries to analyse the trends, patterns and interacting factors affecting the quantitative and qualitative aspects of school education system in India in recent years. It is observed that complete Literacy has not been achieved and this has far reaching socio-economic impacts. Enrolments in schools have improved substantially in recent years but the retention rates are poor, and only a fraction of enrolled students completes even the primary classes. Completion of middle and secondary levels are still lower. Substantial gender-bias both in access to and completion of education is a major cause of concern. Wide regional variation exists even within this sub-standard performance of the basic education system. While a few states have performed moderately, others have done abysmally, and continue to do so. Factors like poverty, presence of a wide child-labour market, absence of assured employment after schooling, and infrastructural problems, are identified as responsible for the ills plaguing the elementary education system in India. Providing incentives for attending schools, making the schooling process attractive to the children, streamlining the middle and high school curriculum to make it more vocational and job-oriented, and providing better infrastructure for the schools are some of the policies likely to improve the scenario.

Introduction

Education is the basic requirement and the 'Fundamental Right' of the citizens of a nation. While higher education is important in building up a quality human resource Base for the nation, the basic or elementary education system holds much more significance. In fact, since the inputs of the higher education system are nothing but the outputs of the

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elementary' education system, the later serves as the base over which the Super-structure of the whole education system is built. Attainment of basic education is important both due to its impact on the living standards of the people as also in augmenting their capabilities. Possession of reading and writing skills empower an individual to participate in modern economic processes, and transform his embodied capital into higher earning and better living. The present market based global village puts up a barrier for those who 'cannot read or write or count, and cannot follow written instructions' (Sen, 1998). More than five decades ago, the Constitution of India committed that *"the State shall endeavour to provide, within a period of 10 years from the commencement of the constitution, free and compulsory education for all children until they complete the age of fourteen years"* (Article 45, The Constitution of India). When we look back, it is not hard to see that much of that commitment has remained only on paper. While expansion of higher education in India has been remarkable, it is equally amazing that even then we have made only a meagre progress in spreading elementary education. The present paper tries to analyse the trends, patterns and interacting factors related to quantitative and qualitative aspects of education system in India in the recent years.

The paper is divided into seven sections. In the next section, the methodology of the study is briefly outlined. The third section discusses the importance of literacy and educational attainment in socio-economic development. Thereafter the trends and patterns in educational attainment in India and its regional aspects; the factors that affect such attainment levels; and the factors affected by educational attainment are explored. The last section, we discuss the policy issues related to improvement in educational attainment in India.

Methodology

The attainment of education in India is sought to be measured by the indices of literacy, enrolment in schools, dropout before completion of study and completion of school stages. We consider 1985, 1990, 1995, and 2000 as the reference years. Consequently, examining the 1995-2000 movements in various measures can bring out the post-reform trends in educational attainment. The main data sources are various issues of Selected Educational Statistics published by the Ministry of Human Resource Development, Govt, of India.

Literacy - Basic Indicator of Education

India is the home to 16% of world population accommodated in 2.42% of the world's total land [area](#). It spends 3.8% of its GNP on education. However, even in 2001, about 35% of its 7+ people were illiterates. According to World Education Report 1998, about one-third of the world's non-literate, aged 15 years and above, live in India. If we consider that literacy - being able to read and write in someone's mother language - is the first step towards education, we find ourselves to be lagging far behind acceptable standards. Added to this is the fact that almost half of our women are illiterate, leading to a serious gender discrimination. Moreover, we have not yet achieved more than 68%

literacy for the 0-9 age group, indicating that the pool of illiterates is ever increasing. This has far reaching consequences as literacy has wide socio-economic impacts. It is generally accepted that social phenomena like birth rates (CBR), death rates (CDR), infant mortality rates (IMR), and population growth rates (PGR), decelerate with improvements in literacy levels. This phenomenon is observed to be operating in India also, as we find that the correlation between the state-level literacy rates and their CBR, CDR, IMR and PGR are significantly negative (Table 1). Apart from these social impacts, improvements in literacy levels lead to uplifting of living standards also. While work participation rates (WPR), per capita income (measured by per capita net state domestic product - PCNSDP) and per capita consumption (monthly private consumption expenditure - MPCE) are observed to have significantly positive association with the literacy rate of the state, percentage of people below poverty line has a significant negative association with literacy. Thus, improvement of the 'inclusion rate' does not only have aggregate uplifting effect but also desired distributional consequences. Moreover, in all these cases the association is found to be stronger with female literacy than male literacy, thereby underlying the importance of female education in India. This also identifies gender gap in educational attainment (EA) as an important issue for exploration.

TABLE 1
Socio-Economic Correlates of Literacy Rates

Year	Correlation With	Male	Female	Total
1990	Crude Birth Rate	-0.786**	-0.821**	-0.819**
	Crude Death Rate	-0.776**	-0.844**	-0.816**
	Infant Mortality Rate	-0.683**	-0.737**	-0.725**
	PCNSDP	0.478	0.471	0.491
	WPR	0.260	0.255	0.251
	Incidence of Poverty	-0.367	-0.413	-0.412
	MPCE	0.465	0.455	0.479
1995	Crude Birth Rate	-0.758**	-0.813**	-0.805**
	Crude Death Rate	-0.639**	-0.709**	-0.684**
	Infant Mortality Rate	-0.808**	-0.862**	-0.850**
	PCNSDP	0.569*	0.593*	0.607*
	WPR	-0.032	-0.064	-0.061
	Incidence of Poverty	-0.386	-0.487	-0.463
	MPCE	0.654**	0.667**	0.678**
2000	Crude Birth Rate	-0.611*	-0.791**	-0.748**
	Crude Death Rate	-0.589*	-0.712**	-0.712**
	Infant Mortality Rate	-0.627**	-0.809**	-0.765**
	PCNSDP	0.632**	0.681**	0.699**
	WPR	0.206	0.173	0.182
	Incidence of Poverty	-0.431	-0.44	-0.459
	MPCE	0.664**	0.703**	0.731**

Note: * - Significant at 5%, ** - Significant at 1%.

Source: Author's calculations.

Educational Attainment in India

It has earlier been mentioned that India is far behind the acceptable standards regarding the first step towards education, i.e. literacy. However, even whatever level has been attained is not uniformly throughout India. Wide regional disparity in EA standards is a vexing problem in India. We now explore those issues.

Literacy Trends and Patterns

Over the last century, literacy in India has increased from 5.3% in 1901 to 65.4% in 2001. However, the improvement is much more pronounced for the males compared to the females, especially till 1981. As a result, the gender gap (difference between the % figures for the males and the females - GG) in literacy has soared from 9.2 points in 1901 to 26.8 points in 1981; however declined thereafter to 21.7 points in 2001. This attainment also has not been uniform across regions (Table 2).

TABLE 2
Literacy, Gender Gap and Gender Gap Adjusted Literacy Rates in
Indian States During 1991-2001

States	1991					1995					2001				
	M	F	T	GG	Adj T	M	F	T	GG	AdjT	M	F	T	GG	AdjT
AndhraPr.	55	33	44	22	26	60	37	49	23	30	71	51	61	20	44
Bihar	52	23	38	29	17	59	28	44	31	21	64	37	51	27	29
Delhi	82	67	75	15	61	86	74	80	12	69	87	75	82	12	71
Gujarat	73	49	61	24	41	77	50	64	27	42	81	59	70	22	51
Haryana	69	40	56	29	32	72	52	63	20	46	79	56	69	23	49
HP	75	52	64	23	44	81	61	71	20	53	86	68	77	18	61
Karnataka	67	44	56	23	37	67	51	59	16	45	76	57	67	19	50
Kerala	94	86	90	8	82	95	89	91	6	85	94	88	91	6	85
MP	58	29	44	29	22	61	34	48	27	27	77	51	64	26	42
Maharashtra	77	52	65	25	44	83	62	73	21	55	86	68	77	18	61
Orissa	63	35	49	28	27	66	42	54	24	34	76	51	64	25	43
Punjab	66	50	59	16	45	68	54	62	14	49	76	64	70	12	59
Rajasthan	55	20	39	35	14	59	26	43	33	19	76	44	61	32	35
Tamil Nadu	74	51	63	23	43	76	54	65	22	46	82	65	73	17	58
UP	56	25	42	31	19	63	34	49	29	26	75	50	60	25	40
West Bengal	68	47	58	21	40	76	55	66	21	48	78	60	69	18	53
INDIA	64	39	52	25	32	69	46	58	23	39	76	54	65	22	46
Coeffof Variation	16.3	37.7	23.9	27.4	45.5	14.6	32.5	21.2	32.1	39.2	8.7	20.5	13.5	31.7	26.2

Note: M- Male, F- Female, T- Total, GG- Gender Gap, Adj T- GG Adjusted Total.

Source: Author's calculation based on Census of India (2001) GOI (Various Years), Statistical Abstract, GOI

While Kerala has achieved 91% literacy level in 2001, with a GG of only 6 points, Bihar lags far behind with 51% literacy and 27 points GG. GG is also significantly high for Rajasthan, Orissa, Madhya Pradesh and Uttar Pradesh. If we construct a GG adjusted literacy rate, it is observed that the All India figure scales down to just 46%. Strikingly poor performance is put up by Bihar (29%), Rajasthan (35%), Uttar Pradesh (40%) and Madhya Pradesh (42%). Kerala and Delhi exhibit laudable performances. It is also observed that the hierarchy of the states have remained fairly stable over the period of study and the rank correlation coefficient between the literacy ranks of the states for the four time points are significantly positive. This is a matter of concern, as the relatively poor performers have remained slow movers also. The only source of consolation is that there seems to be a certain degree of convergence among the states with regional disparity (as shown by Coefficient of Variation among the states) declining continuously over the 1991-2001 decade.

Formal Education - Enrolment in Schools

The next step after literacy leads to the schools. We now examine the trends exhibited by school enrolment of children in India (Table 3).

TABLE 3
Sex-Wise Enrolment by Education Stages since 1951 (In million)

Year	Primary			Middle/Upper Primary			High/Hr. Secondary		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1950-51	13.8	5.4	19.2	2.6	0.5	3.1	13	0.2	15
1955-56	17.1	7.5	24.6	3.8	1.0	4.8	2.2	0.4	2.6
1960-61	23.6	11.4	35.0	5.1	1.6	6.7	2.7	0.7	3.4
1965-66	32.2	18.3	50.5	7.7	2.8	10.5	4.4	1.3	5.7
1970-71	35.7	21.3	57.0	9.4	3.9	13.3	5.7	1.9	7.6
1975-76	40.6	25.0	65.6	11.0	5.0	16.0	6.5	2.4	8.9
1980-81	45.3	28.5	73.8	13.9	6.8	20.7	7.6	3.4	11.0
1985-86	52.2	35.2	87.4	17.7	9.6	27.1	11.5	5.0	16.5
1990-91	57.0	40.4	97.4	21.5	12.5	34.0	12.8	6.3	19.1
1995-96	62.4	47.4	109.8	25.0	16.0	41.0	16.1	8.8	24.9
2000-01	64.1	49.5	113.6	25.1	16.9	42.0	17.2	11.0	28.2

Source: Author's calculations based on Selected Educational Statistics, MHRD, GOI (Various Years).

Enrolment in primary schools has increased from 19.2 million in 1950-51 to 113.6 million in 2001. During the same period, enrolments in the middle and high schools have increased from 3.1 million and 1.5 million to 42 million and 28.2 million respectively. Even this phenomenal increase has not been enough to bring all our children to school. Scaling for population differences, Gross Enrolment Ratio (GER) and Net Enrolment Ratio (NER) are commonly used measures relevant for capturing the collective power of the educational system.² The Gross Enrolment Ratio (GER) for primary stages has

improved from 42.6% in 1950-51 to 95.7% in 2000-01. For the middle levels, the GER increased from 12.7% to 58.6% during the same period. There exists substantial GG in GER with the females lagging behind the males and only 86% and 49% of girls of the relevant age groups enrolling for primary and middle schools respectively. The regional distributions of the GERs are quite disturbing (Table 4).

TABLE 4
Gross Enrolment Ratios in Primary Level - States

States	1985			1990			1995			2000		
	Boys	Girls	Total									
AP	85	64	75	123	95	109	116	100	108	105	103	104
Bihar	94	51	73	115	56	81	96	54	76	100	60	80
Delhi	76	75	76	87	88	87	86	87	87	59	60	59
Gujarat	84	69	76	142	111	127	131	126	129	140	114	127
Haryana	83	67	76	94	79	86	110	95	103	78	79	78
HP	83	73	78	125	109	117	127	112	119	99	82	90
Karnataka	93	80	87	115	107	111	124	115	120	117	109	113
Kerala	87	86	87	100	98	99	104	101	102	88	87	88
MP	99	66	83	119	89	105	117	91	105	120	102	111
Maharashtra	89	79	84	132	119	126	124	115	119	111	106	108
Orissa	85	62	74	120	87	103	117	78	97	132	96	114
Punjab	87	85	86	102	95	98	93	88	91	78	79	78
Rajasthan	85	41	66	107	50	79	120	61	91	140	84	113
Tamil Nadu	98	74	96	112	128	135	149	141	145	99	98	98
UP	75	45	61	105	67	87	101	73	89	81	49	66
West Bengal	80	65	71	140	118	124	125	123	124	113	107	110
INDIA	86	66	76	117	88	103	115	93	105	105	86	96
Coeffof	8.2	18.6	11.3	12.6	22.1	15.5	13.5	23.0	16.3	22.4	21.8	20.4
Variation%												

Source: Author's calculations based on Selected Educational Statistics, MHRD, GOI (Various Years).

The GG in primary GER is alarmingly high in Bihar, Orissa, Rajasthan and Uttar Pradesh, and the total GER is substantially low in these states and in Delhi, Haryana and Punjab.³ However, more alarming is the fact that regional disparity in GERs is found to be increasing with a continuous rise in CV in GER during 1985 to 2000. For the girls though, the CV has decreased marginally during 1990-2000 decade.

The GER for the middle schools show similar regional pattern with substantial GG and relatively low GER in Bihar, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh and West Bengal (Table 5). GER is low in Delhi also, though the GG is low here. The regional disparity decreased during 1985-1995 period but increased in the next quinquennium. This increasing CV among the states for both primary and middle stages is perhaps due to continuous reduction in state plan expenditure on education. The less developed states, having higher marginal impact of state plan expenditure, are perhaps lagging behind because of this curtailment, thereby increasing the disparity.

TABLE 5
Gross Enrolment Ratios in Middle Schools - States

<i>States</i>	<i>1985</i>			<i>1990</i>			<i>1995</i>			<i>2000</i>		
	<i>Boys</i>	<i>Girls</i>	<i>Total</i>									
Andhra Pradesh	45	25	35	71	43	57	74	53	64	56	48	52
Bihar	46	16	31	53	21	37	47	21	35	40	20	40
Delhi	70	67	69	83	80	82	82	78	80	52	52	52
Gujarat	77	56	67	85	59	72	83	56	70	73	59	66
Haryana	73	42	58	75	51	64	82	59	71	65	59	62
Himachal Pradesh	86	64	75	125	96	111	124	98	111	99	87	93
Karnataka	73	50	62	66	47	57	72	57	65	78	70	74
Kerala	86	86	86	106	104	105	108	106	107	101	97	99
Madhya Pradesh	67	29	48	74	36	56	83	50	67	71	47	59
Maharashtra	81	58	70	92	67	80	89	72	81	94	86	90
Orissa	51	30	41	65	38	52	68	47	57	65	43	54
Punjab	71	58	65	79	66	73	72	63	68	65	65	65
Rajasthan	61	17	40	66	23	45	77	29	54	102	47	76
Tamil Nadu	98	70	84	109	86	98	111	91	101	94	92	93
Uttar Pradesh	52	26	40	68	33	52	72	35	55	47	23	36
West Bengal	57	39	48	74	56	65	98	89	94	61	47	54
INDIA	63	38	51	74	47	61	79	55	68	67	50	59
Coeffof Variation%	21.9	42.4	28.6	23.2	42.3	30.1	21.8	36.9	27.0	27.8	38.6	28.9

Source: Author's Calculation based on Selected Educational Statistics, MHRD, GOI (Various Years).

The GERs for secondary & higher secondary (S&HS) and higher education are not available for recent years. However, during the 1995-2000 period, total enrolment in S&HS stages increased by 4.1% and that in higher education by 10.5% (Table 6). It is to be noted that enrolment of girls in these stages have increased almost twice as fast as that of the boys. This rise in female enrolment in the higher levels of education might have been due to the urban factor. The globalisation has brought in widespread employment opportunities for the urban educated females thereby encouraging them to pursue higher education. However, significant regional disparity is again a matter of grave concern. Enrolments have decreased in Uttar Pradesh and West Bengal for S&HS level, and in higher education for the boys of Gujarat and Madhya Pradesh. On the other hand, Delhi, Bihar and Karnataka exhibit substantial improvement for the S&HS level, and Kerala, Himachal Pradesh and Karnataka for higher education level. The CV in growth rates of enrolment has increased during 1995-2000 period for the S&HS stage but has decreased for the higher education levels. It can thus be commented that in an overall sense, enrolment of children in all stages of education in India have improved over the years. Matters of concern is the substantial regional disparity that seems to be rising in the post-reform period, and considerable GG that is more acute at the primary level compared to the higher stages.

TABLE 6
Growth of Enrolment in Secondary, Higher Secondary and Higher Education Average Annual Growth Rates 1985-2000

	1985-1995						1995-2000					
	Secondary & HS			Higher Education			Secondary & HS			Higher Education		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
AP	2.4	2.7	2.5	1.6	4.3	2.5	3.1	6.8	4.5	10.9	12.3	11.4
Bihar	-1.3	-0.1	-1.1	1.0	0.6	0.9	9.4	12.8	10.2	4.9	4.7	4.9
Delhi	0.4	0.2	0.4	3.9	0.5	2.6	21.9	31.8	26.6	3.8	17.4	9.3
Gujarat	1.8	2.2	2.0	1.3	2.2	1.6	3.1	2.2	2.7	-0.4	1.3	0.3
Haryana	2.0	5.9	3.2	-1.0	2.1	0.2	5.7	11.1	7.7	10.9	11.1	11.0
Himachal Pradesh	1.9	3.3	2.4	9.9	10.3	10.0	3.1	8.5	5.3	19.8	31.0	23.7
Karnataka	2.7	1.5	2.2	2.4	3.5	2.7	3.8	10.3	6.3	14.5	34.9	22.7
Kerala	2.3	3.1	2.7	-7.7	-4.3	-5.8	2.0	2.7	2.3	34.0	35.4	34.9
MP	1.2	2.4	1.5	1.1	0.5	1.0	5.0	9.9	6.5	-0.4	8.9	2.6
Maharashtra	0.8	1.8	1.2	0.3	1.5	0.7	2.1	5.5	3.4	1.5	3.4	2.2
Orissa	6.2	7.2	6.6	2.9	4.0	3.2	0.6	2.5	1.2	8.3	5.3	7.5
Punjab	1.7	3.1	2.3	4.0	4.0	4.0	2.4	4.5	3.3	4.1	4.4	4.2
Rajasthan	1.6	-0.5	1.2	2.5	4.5	3.1	-0.1	10.2	2.2	9.2	14.9	11.0
Tamil Nadu	1.0	1.3	1.1	-1.8	-1.2	-1.6	0.6	6.7	3.2	10.6	18.3	14.0
UP	0.7	0.7	0.7	0.4	0.3	0.4	-1.4	1.2	-0.7	15.2	26.9	18.5
West Bengal	1.0	2.6	1.5	0.1	0.1	0.1	-1.0	-3.8	-2.0	11.3	11.6	11.4
INDIA	1.4	2.1	1.6	0.9	1.5	1.1	2.8	6.6	4.1	8.3	14.3	10.5
Coeffof	77.5	101.5	81.5	358.0	160.0	161.5	138.3	97.4	129.6	86.2	75.7	77.1
Variation%												

Source: Author's calculations based on sources mentioned for Table 5.

The GER often exceeds 100 per cent due to inclusion of over-age, under-age, as well as repeat students for the concerned class. Consequently, NER is thought to be a better indicator of accessibility and capacity of the education system to enroll students. Recent data on NER is available for 1993 (from NCERT; Sixth All India Educational Survey - 6AIES), for 1995 (from NSSO 52nd Round Survey), and for 2001 (from NCERT's Seventh All India Educational Survey - 7AIES) only. The NSSO data for 1995-96 gives a Net Enrolment Ratio of 66 per cent for Classes I-V and 43 per cent for Classes VI-VIII. In rural areas, this ratio was 63 and 39 per cent, respectively, for these classes. The corresponding ratios for urban areas were higher at 78 per cent for primary classes and 58 per cent for the middle classes. Moreover, while gender gap in the ratios for rural areas was significant, more so for the Middle classes, it was not so in urban areas. At state level, for primary classes, the NER was significantly lower than the national average for Bihar, Rajasthan and Uttar Pradesh. Apart from these three states, for the middle classes, the ratio was also lower than the national average in Madhya Pradesh and West Bengal. However, for temporal comparability, we concentrate on the NCERT Surveys of 1993 and 2001. As per the 6AIES, NER was 62.2 per cent for children in age group 6 to below 11 years, and 44.8 per cent for ages 11 to below 14 years. However, at state level, NER for boys in the age group 6 to below 11 years in Kerala was lower than or close to that

prevailing in a number of states like Assam, Bihar, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Orissa and Tamil Nadu. This is surprising, given the educational attainment in the State of Kerala. The 7AIES figures for 2001 show that the NER at the all India level have increased to 64.2 per cent for the 6 to 11 years age group and have remained stagnant at 44.8 per cent for the 11 to 14 years age group (Table 7). The GG in NER in 2001 has been 13 percentage points for the primary level and 14 percentage points for the middle level. Regional distribution of NER also suggests that GG in NER is alarmingly high in Rajasthan, Bihar, Uttar Pradesh, Madhya Pradesh and Orissa, while it is quite low in Kerala, Punjab and Delhi (where it is in fact negative!). Similar results hold for the GG in middle levels also.

TABLE 7
Net Enrolment Ratios in Primary and Middle Schools in 2001 - States

States	Primary			Middle			All Elementary		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Andhra Pradesh	63	54	58	35	25	30	53	44	49
Bihar	77	47	63	41	21	32	65	39	53
Delhi	75	78	77	82	82	82	78	80	78
Gujarat	81	71	76	62	50	56	74	63	69
Haryana	69	66	68	55	45	50	64	59	62
Himachal Pradesh	84	80	82	68	60	64	78	72	75
Karnataka	83	73	78	54	43	49	72	63	68
Kerala	79	76	77	83	81	82	80	78	79
Madhya Pradesh	85	68	76	47	26	37	72	54	63
Maharashtra	73	68	71	51	44	48	65	60	63
Orissa	81	64	73	52	35	44	71	54	63
Punjab	74	71	73	56	53	55	67	64	66
Rajasthan	71	39	56	49	20	35	63	33	49
Tamil Nadu	80	76	78	91	83	87	84	79	81
Uttar Pradesh	56	38	48	51	28	41	54	35	45
West Bengal	53	47	50	35	27	31	47	40	43
INDIA	71	57	64	51	37	45	64	50	58
CoeffofVariation%	13.0	22.1	15.7	28.9	48.4	36.4	15.1	27.4	19.6

Source: NCERT, Seventh All India Educational Survey, 2001. URL: <http://www.shiksha.nic.in>

While it is admitted that NER is a better indicator of the enrolment capacity of the educational system, lack of comparable data over a long time makes its use rather difficult. As a result we continue to use GER for the statistical analysis hereafter.

As a caveat, we compare NER and GER for the states for 2001 to explore the prevalence of over-age enrolment and repeaters in the school stages. It is observed that NER and GER are almost similar for the states of Delhi, Himachal Pradesh and Punjab. On the other hand, substantial disparity between NER and GER is observed for West Bengal, Rajasthan (GER twice of NER), Andhra Pradesh, Maharashtra, and Madhya

Pradesh, indicating a substantial number of repeaters and over-age enrolment in these states.

Retention of Children in Schools

It is observed that the GERs are significantly and consistently lower for the middle school stages compared to the primary stages consistently. This indicates that retention of children in schools is poor and only a fraction of the enrolled students complete school education. In fact, the dropout rates (DOR) are substantially high in India. The primary, middle and secondary levels DORs were 65% and 78% in 1960-61 and even in 2000-01, the DOR are 40.3%, 54.5% and 68.3% in primary, middle and secondary levels respectively. This indicates that only about 32% of the enrolled students complete their school education. However the DORs are higher for the girls compared to the boys. Though the DOR in the secondary level has decreased, it has increased for the primary and middle levels between 1995 and 2000 (Tables 8 & 9).

TABLE 8
Drop Out Rates in Primary, Middle and Secondary Levels - States -1995

<i>States</i>	<i>Primary 1990-95</i>			<i>Middle 1987-95</i>			<i>Secondary 1985-95</i>		
	<i>Boys</i>	<i>Girls</i>	<i>Total</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Andhra Pradesh	42.5	41.8	42.2	59.9	66.5	62.8	76.7	82.1	79.0
Bihar	61.6	65.9	62.9	72.2	82.8	79.1	83.5	90.1	85.9
Delhi	19.3	28.8	25.7	16.1	31.4	23.4	33.6	46.6	39.9
Gujarat	41.8	51.1	45.9	54.7	65.1	59.4	66.6	73.6	69.7
Haryana	1.6	6.8	3.9	17.6	32.1	23.9	45.4	58.0	50.7
Himachal Pradesh	18.9	26.3	22.4	8.5	24.1	15.8	42.2	58.8	50.0
Karnataka	36.1	36.8	36.4	56.1	32.9	60.9	64.9	73.9	69.1
Kerala	0.0	0.0	0.0	1.9	2.0	2.0	35.6	24.3	30.1
Madhya Pradesh	23.4	35.0	28.4	38.1	54.1	44.7	75.5	85.2	79.3
Maharashtra	19.1	25.5	22.1	41.5	54.0	47.4	57.6	69.5	63.5
Orissa	57.1	52.1	55.1	62.6	59.0	61.2	53.4	63.6	57.5
Punjab	22.6	22.9	22.8	42.3	51.2	46.4	52.2	61.7	56.6
Rajasthan	51.2	59.3	53.7	61.3	72.5	64.7	79.1	88.4	81.9
Tamil Nadu	15.6	17.6	16.5	30.8	39.4	34.7	61.5	69.2	65.1
Uttar Pradesh	20.3	21.1	20.6	32.2	48.4	37.9	47.9	73.1	56.9
West Bengal	36.2	45.8	40.4	48.8	43.9	46.7	75.7	76.5	76.1
INDIA	35.2	37.*	36.3	50.0	56.5	52.7	67.2	73.8	69.9
CoeffofVariation%	57.0	50.0	52.6	48.7	39.8	43.2	25.6	22.4	23.3

Source: Author's calculations based on sources mentioned for Table 5.

TABLE 9
Drop Out Rates in Primary, Middle and Secondary Levels - States - 2000

States	Primary 1995-00			Middle 1992-00			Secondary 1990-00		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Andhra Pradesh	40.8	42.2	41.5	61.3	65.2	63.1	76.5	77.6	77.0
Bihar	70.0	73.0	71.1	71.9	80.3	75.0	86.1	91.5	88.0
Delhi	5.4	6.0	5.7	49.6	52.4	51.0	0.0	0.0	0.0
Gujarat	22.6	24.4	23.4	47.1	58.0	52.1	70.6	74.9	72.5
Haryana	23.7	19.7	21.9	13.6	22.5	17.7	26.7	42.7	34.0
Himachal Pradesh	30.5	24.0	27.5	20.5	23.4	21.9	34.5	38.0	36.2
Karnataka	24.7	18.5	21.9	50.8	51.2	51.0	61.3	65.3	63.2
Kerala	0.0	0.0	0.0	0.0	0.0	0.0	23.8	14.3	19.2
Madhya Pradesh	16.0	12.8	14.6	60.1	67.9	63.4	62.2	76.4	68.4
Maharashtra	15.9	18.8	17.3	35.4	38.9	37.0	52.5	59.0	55.6
Orissa	41.5	42.8	42.1	57.3	64.8	60.7	75.4	74.6	75.1
Punjab	24.6	20.2	22.5	40.1	37.4	38.9	35.4	35.7	35.5
Rajasthan	46.0	62.7	52.5	46.8	64.6	53.6	75.1	81.1	77.1
Tamil Nadu	53.0	31.7	42.6	16.1	32.4	24.0	58.0	58.9	58.4
Uttar Pradesh	52.9	62.1	56.5	59.1	71.5	63.9	56.2	73.2	62.1
West Bengal	46.2	57.0	51.5	67.7	74.4	70.9	79.1	86.1	82.6
INDIA	38.7	42.3	40.3	52.0	58.0	54.5	66.6	70.6	68.3
CoeffofVariation%	63.1	70.5	64.7	48.0	45.0	45.5	58.3	65.2	61.2

Source: Author's calculations based on sources mentioned for Table 5.

At the regional level, zero DOR have been achieved in Kerala for primary and middle levels and in Delhi for secondary level. In contrast, Bihar has a DOR of more than 70% at primary and middle levels and both Bihar and West Bengal have more than 80% DOR at the secondary level (Tables 8 & 9). These have resulted in a substantially high regional disparity and the CV in DORs is observed to be increasing during 1995-2000 period.

Completion of School Stages

The DOR, though is a very important indicator of educational attainment, has certain limitations. It only reflects the percentage of the enrolled students that leave before completing a certain stage of schooling. However, to know what proportion of children of the relevant age group is attaining a certain level of schooling, one should look into the completion rate (CR).⁴ It is observed that even in 2000, only 63%, 46% and 33% of the relevant age group children completed primary, middle and secondary level education respectively (Tables 10 & 11). The CRs have increased for the middle and secondary stages but has declined for the primary level during the period 1995-2000. The CRs are lower for the girls with only 37% and 26% of them completing middle and secondary schools. About three-fourths of the girls are thus not completing even school education! The only exception has been Kerala, which has achieved 100% completion rates at primary and middle stages, and higher CR for the girls than the boys at the secondary level.

TABLE 10

Completion Rates of Primary, Middle and Secondary Levels - States - (1995)

<i>States</i>	<i>Completed Primary</i>			<i>Completed Middle</i>			<i>Completed Secondary</i>		
	<i>Boys</i>	<i>Girls</i>	<i>Total</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Andhra Pradesh	71	55	63	34	22	28	20	11	16
Bihar	44	19	30	26	9	15	16	5	10
Delhi	70	63	65	64	52	58	51	40	46
Gujarat	68	54	61	38	24	31	28	18	23
Haryana	92	73	83	69	46	58	45	28	37
Himachal Pradesh	95	80	91	76	56	66	48	30	39
Karnataka	74	67	71	41	54	34	33	21	27
Kerala	100	98	99	86	84	85	56	65	61
Madhya Pradesh	91	58	75	61	30	46	24	10	17
Maharashtra	95	89	91	52	36	44	38	24	31
Orissa	50	41	46	32	26	29	40	23	31
Punjab	79	73	76	50	41	46	41	32	37
Rajasthan	52	20	37	33	11	23	18	5	12
Tamil Nadu	95	91	93	68	45	63	38	23	34
Uttar Pradesh	84	53	69	51	23	38	39	12	26
West Bengal	75	62	70	41	36	38	20	15	17
INDIA	76	55	65	43	29	36	28	17	23
Coeff of Variation%	22	35	27	37	52	44	39	65	47

TABLE 11

Completion Rates of Primary, Middle and Secondary Levels - States - 2000

<i>States</i>	<i>Completed Primary</i>			<i>Completed Middle</i>			<i>Completed Secondary</i>		
	<i>Boys</i>	<i>Girls</i>	<i>Total</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Andhra Pradesh	69	58	63	47	33	40	29	21	25
Bihar	29	15	22	28	11	20	16	5	10
Delhi	81	82	82	44	42	43	100	100	100
Gujarat	100	95	99	70	45	58	26	22	24
Haryana	84	76	80	76	62	69	69	45	57
Himachal Pradesh	88	85	86	96	77	86	82	68	75
Karnataka	93	94	94	60	54	57	45	37	41
Kerala	100	100	100	100	100	100	76	84	80
Madhya Pradesh	98	79	90	45	27	37	45	21	33
Maharashtra	104	93	98	79	68	74	63	49	56
Orissa	68	45	56	55	30	41	30	22	26
Punjab	70	70	71	56	56	56	66	61	63
Rajasthan	65	23	43	57	19	38	27	9	18
Tamil Nadu	70	96	83	100	88	100	47	53	56
Uttar Pradesh	48	28	39	36	15	26	46	18	33
West Bengal	67	53	60	42	31	37	29	16	22
INDIA	70	54	63	54	37	46	39	26	33
Coeff of Variation %	28.0	41.5	33.1	41.1	55.9	46.1	74.0	93.7	83.2

Source: Author's calculations based on sources mentioned for Table 5.

This perhaps explains the social transformation observed in Kerala. Substantial regional disparity thus exists in CR also. At the secondary level, while Delhi has achieved a CR of 100%, but in Bihar and West Bengal the CR is 10% and 22% only. Just 5% and 9% of girls in Bihar and Rajasthan complete their schooling. Similar disparities are observed for the primary and middle stages also. More serious however, is the fact that regional disparities in CRs have increased at all stages of education during 1995-2000 period, as evident from the increased CV. It can thus be inferred that universalisation of basic education has remained an elusive goal even after more than half a century of our independence. Given that elementary education is a minimum need of the people in the present world, it is quite clear that we have not so far been able to meet the basic need of our future generation. The factors responsible for such lack lustre performance are explored below.

Factors Affecting Educational Attainment

There are two major that factors emerge as responsible for our moderate success regarding EA. Overbearing poverty has been a major cause of withdrawal of children from schools. In the presence of an extensive child labour market, sending children to work fetches the family some additional income. Thus going to school has an opportunity cost which the parents are unwilling to bear. This is true for the poor families for whom the marginal value of this additional income is very high. As a result, even if the children start going to school, they do not continue for long. It is observed that incidence of poverty in the states has significant positive association with DOR and significant negative association with CR, thereby confirming the above notion (Tables 12 & 13).

TABLE 12
Correlates of Dropout Rates - Correlation
Coefficient of Dropout Rates with Select Indicators

Year	Correlates	Primary			Middle			Secondary		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1990	Poverty	0.542*	0.447	0.460	0.570*	0.569*	0.570*	0.579*	0.576*	0.585
	No. of Schools	-0.386	-0.143	-0.157	-0.490	-0.447	-0.466	-0.803**	-0.613*	-0.663*
	Edu Infra Index	-0.572*	-0.323	-0.338	-0.574*	-0.527*	-0.550*	-0.803**	-0.591*	-0.656*
	RPLEXEDU'	-0.333	-0.073	-0.098	-0.354	-0.308	-0.339	-0.621*	-0.368	-0.45
1995	Poverty	0.441	0.408	0.420	0.419	0.370	0.414	0.422	0.455	0.43
	No. of Schools	-0.113	-0.040	-0.050	-0.200	-0.183	-0.167	-0.462	-0.405	-0.43
	Edu Infra Index	-0.091	-0.041	-0.039	-0.298	-0.177	-0.259	-0.459	-0.352	-0.40
	RPLEXEDU'	-0.469	-0.380	-0.423	-0.414	-0.209	-0.376	-0.256	-0.129	-0.20
2000	Poverty	0.481	0.470	0.491	0.529*	0.536*	0.539*	0.608*	0.553*	0.583
	No. of Schools	-0.211	-0.165	-0.191	0.116	0.049	0.089	-0.798**	-0.845**	-0.828*
	Edu Infra Index	-0.336	-0.332	-0.341	0.057	-0.008	0.031	-0.748**	-0.804**	-0.781*
	RPLEXEDU"	-0.186	-0.274	-0.237	-0.136	-0.074	-0.102	-0.582*	-0.602*	-0.597*

Note: Poverty - Incidence of Poverty; Edu Infra Index - Educational Infrastructure Index;
(a) State's Real Plan Expenditure on Education. * - Significant at 5%. ** - Significant at 1%.

Source: Author's calculation.

Considering that in 1999-2000, when 14% of 'out of school' children aged 5-14 years cite 'supplementing household income' as the reason for dropping out of school, we must regard this issue very seriously.

TABLE 13
Correlates of Completion Rates - Correlation
Coefficient of Completion Rates with Select Indicators

Year	Correlates	Primary			Middle			Secondary		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1990	Poverty	-0.441-0.446		-0.383	na	na	na	na	na	na
	No. of Schools	0.329	0.070	0.073	na	na	na	na	na	na
	Edu Infra Index	0.510*	0.235	0.240	na	na	na	na	na	na
	RPLEXEDU ³	0.298-0.053		0.001	na	na	na	na	na	na
1995	Poverty	-0.281-0.385		-0.347	-0.347	-0.420	-0.406	-0.387	-0.477	-0.460
	No. of Schools	-0.136-0.013		-0.091	0.095	0.204	0.121	0.383	0.367	0.385
	Edu Infra Index	-0.144-0.006		-0.086	0.190	0.198	0.208	0.388	0.320	0.357
	RPLEXEDU ³	0.450	0.355	0.383	0.426	0.141	0.373	0.253	0.112	0.215
2000	Poverty	-0.369-0.402		-0.402	-0.313	-0.399-0.368		-0.499*	-0.494	-0.497*
	No. of Schools	-0.112	0.008	-0.042	-0.219	-0.059-0.142		893**	860**	0.883**
	Edu Infra Index	0.076	0.182	0.142	-0.139	0.003	-0.072	873**	838**	0.863**
	RPLEXEDU ³	0.090	0.282	0.209	0.188	0.170	0.188	677**	669**	0.699**

Note: * - Significant at 5%, ** - Significant at 1%.

Poverty - Incidence of Poverty; Edu Infra Index - Educational Infrastructure Index;
a -: State's Real Plan Expenditure on education; na :- Not available as completion rates
could not be calculated for 1990 due to non-availability of GER for 1982 and 1980.

Source: Author's calculation.

While the economic reasons are important, lack of adequate educational infrastructure adds to the problems. The growth of educational institutions, teachers therein and the infrastructural facilities available have lagged far behind the growth of population in general and the growth of school going children in particular. Availability of schools per capita and teacher-pupil ratio in primary level have declined during 1951-2001 period, falling by about 50% in the former case. The dependence of EA on state's support towards educational infrastructure is revealed by the facts that CRs are positively associated with availability of schools (per 1000 square km), the association being significant for the secondary stage. If we consider states' planned capital expenditure on education as an index of government support, we find that much of the regional disparity in EA can be attributed to this factor. Significant positive association between CR and real planned expenditure on education is observed. Consequently, the association between CR and a composite index of educational infrastructure is also observed to be significantly positive for all the time points.⁵ It should be noted that the association is found to be stronger at the secondary and middle school level than at the primary level, indicating that availability of educational infrastructure is more important at the higher levels compared to at the elementary level. Apart from the dearth in numbers, the

qualitative standards of the schools also play a vital role. Most of the schools do not have amenities like blackboards, drinking water facilities, and separate urinal for girls, lavatories, etc. This is not surprising when there are numerous schools without any building and classes are held under the customary banyan tree of the village! It is quite natural then that the children do not find school attractive. A crude association between percentage of girls completing middle schools and percentage of primary and middle schools having separate urinals for girls is observed to be significantly positive (0.62). This shows just how important availability of basic amenities is in determining EA levels.

In the backdrop of these findings, it is necessary to re-examine our policy of gradually withdrawing state support towards provisioning of educational infrastructure in the post reform era.

Effects of Educational Attainment

The most crucial impact of EA is on the socio-economic standards of the people. States having higher CRs also have higher PCNSDP and higher MPCE, as indicated by the significant positive correlation coefficient between them (Tables 14 & 15). Higher embodied human capital enables people to participate in better income earning opportunities.

TABLE 14
Impact of Dropout from Schools - Correlation
Coefficient of Dropout Rates with Select Indicators

Year	Correlates	Primary			Middle			Secondary		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1990	CBR	0.627**	0.475	0.495	0.490	0.592*	0.516*	0.496	0.668**	0.552*
	CDR	0.658**	0.602*	0.596*	0.477	0.590*	0.506*	0.413	0.621*	0.486
	IMR	0.450	0.412	0.433	0.323	0.486	0.382	0.202	0.496	0.338
	PCNSDP	-0.597*	-0.376	-0.407	-0.512*	-0.475	-0.484	-0.640**	-0.512*	-0.543*
	WPR	-0.325	-0.331	-0.315	-0.317	-0.271	-0.290	-0.104	-0.177	-0.141
	MPCE	-0.632**	-0.414	-0.439	-0.606*	-0.593*	-0.599*	-0.730**	-0.621*	-0.649**
1995	CBR	0.520*	0.501*	0.507*	0.490	0.583*	0.508*	0.459	.634**	0.532*
	CDR	0.351	0.428	0.387	0.309	0.541*	0.376	0.266	0.535*	0.374
	IMR	0.523*	0.520*	0.518*	0.532*	.623**	0.551*	0.473	.702**	0.575*
	PCNSDP	-0.456	-0.371	-0.400	-0.400	-0.310	-0.368	-0.509*	-0.436	-0.466
	WPR	0.061	0.051	0.050	0.030	-0.028	0.028	0.193	0.176	0.205
	MPCE	-0.447	-0.341	-0.379	-0.548*	-0.469	-0.533*	-0.592*	-0.551*	-0.574*
2000	CBR	0.471	0.573*	0.526*	0.468	0.578*	0.511*	0.383	0.480	0.423
	CDR	0.519*	0.505*	0.521*	0.442	0.524*	0.480	0.656**	.707**	0.679**
	IMR	0.532*	0.533*	0.542*	0.506*	0.601*	0.551*	0.562*	.631**	0.595*
	PCNSDP	-0.608*	-0.605*	-0.619*	-0.321	-0.390	-0.350	-0.814**	-0.828**	-0.821**
	WPR	-0.124	-0.263	-0.196	-0.258	-0.262	-0.258	0.255	0.193	0.233
	MPCE	-0.609*	-0.592*	-0.613*	-0.350	-0.410	-0.376	-0.850**	-0.887**	-0.870**

Note: * - Significant at 5%, ** - Significant at 1%; CBR - Crude Birth Rate; CDR - Crude Death Rate; IMR - Infant Mortality Rate; PCNSDP - Per Capita Net State Domestic Product; WPR - Work Participation Rate; MPCE - Monthly Private Consumption Expenditure;

Source: Author's calculations.

It cannot, however, be denied that this relationship is bi-directional. If we accept poverty and incidence of child labour as the major causes of school drop outs, the positive association between income and consumption level on one hand and CRs on the other may also be interpreted as a reflection of higher earning capabilities of the people enabling their wards to continue schooling. To test this bi-directionality of the relationship, lead-lag analysis is carried out by determining the correlation coefficient between CR and DOR of t^{th} time point and PCNSDP and MPCE of $(t-1)^{\text{th}}$ time point, as also between CR and DOR of $(t-1)^{\text{th}}$ time point and PCNSDP and MPCE of t^{th} time point. The magnitude of the coefficients would let us determine the strength of the directional causalities and conclude appropriately. It is observed that for the periods 1985-90 and 1990-95, the causality is greater from EA to socio-economic standards than the other way round. However, in the post-reform period, i.e. during the period 1995-2000, the causation for the Primary level is stronger from the earning (& consumption) capabilities to the educational attainment factors than the other way round. This implies that in recent years for the primary section at least, lack of income capabilities is leading to higher dropouts and lower completion rates. This underlines the increasing importance of income augmenting policies in ensuring educational attainment of our children.

TABLE 15
**Impact of Educational Attainment - Correlation
Coefficient of Completion Rates with Select Indicators**

<i>rear</i>	<i>Correlates</i>	<i>Primary</i>			<i>Middle</i>			<i>Secondary</i>		
		<i>Boys</i>	<i>Girls</i>	<i>Total</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
1990	CBR	-0.585*	-0.610*	-0.543*	na	na	na	na	na	na
	CDR	-0.667**	-0.708**	-0.684**	na	na	na	na	na	na
	IMR	-0.444	-0.582*	-0.527*	na	na	na	na	na	na
	PCNSDP	0.521*	0.372	0.353	na	na	na	na	na	na
	WPR	0.391	0.367	0.407	na	na	na	na	na	na
	MPCE	0.543*	0.356	0.346	na	na	na	na	na	na
1995	CBR	-0.404	-0.643**	-0.538*	-0.459	-0.683**	-0.570*	-0.485	-0.695**	-0.629**
	CDR	-0.446	-0.740**	-0.623**	-0.390	-0.674**	-0.545*	-0.381	-0.622*	-0.548*
	IMR	-0.419	-0.650**	-0.543*	-0.520*	-0.740**	-0.628**	-0.513*	-0.778**	-0.685**
	PCNSDP	0.285	0.453	0.366	0.325	0.366	0.366	0.480	0.441	0.477
	WPR	0.233	0.218	0.258	0.079	0.064	0.075	-0.105	-0.124	-0.101
	MPCE	0.227	0.364	0.299	0.429	0.470	0.473	0.526*	0.533*	0.547*
2000	CBR	-0.492	-0.698**	-0.619*	-0.561*	-0.735**	-0.659**	-0.385	-0.549*	-0.474
	CDR	-0.389	-0.531*	-0.479	-0.339	-0.543*	-0.454	-0.648**	-0.728**	-0.689**
	IMR	-0.394	-0.572*	-0.505*	-0.431	-0.665**	-0.565*	-0.528*	-0.660**	-0.597*
	PCNSDP	0.444	0.559*	0.528*	0.214	0.401	0.318	0.844**	0.854**	0.854**
	WPR	0.444	0.462	0.460	0.533*	0.419	0.484	-0.237	-0.123	-0.174
	MPCE	0.412	0.516*	0.485	0.231	0.405	0.327	0.882**	0.906**	0.900**

Note: Significant at 5%, ** - Significant at 1%; CBR - Crude Birth Rate; CDR - Crude Death Rate; IMR - Infant Mortality Rate; PCNSDP - Per Capita Net State Domestic Product; WPR - Work Participation Rate; MPCE - Monthly Private Consumption Expenditure; a - Not determined due to non-availability of GER for 1982 and 1980..

Source: Author's calculations.

There are, however, other direct consequences of improvements in EA. As has already been noted, deprivation parameters like CBR, CDR and MR are observed to be declining significantly with rise in CRs, especially with those of the females. This highlights the importance of women's education in ushering in of social transformation in India. These social changes are a pre-requisite of *'Take Off'* as indicated by Rostow (1960).

Conclusion

It can thus be concluded that EA and providing elementary education to all our children has remained an un-attained frontier. Substantial regional variation exists even within the moderate rate of success achieved and the disparity seems to be increasing in the post-reform period. Under the present LPG (liberalisation-privatisation-globalisation) policy dispensation, the opportunities offered by the market seem to have had an anti-egalitarian effect. While opportunities for the professionally trained, highly educated, skilled manpower, have increased, thereby encouraging the upper echelons to acquire higher educational levels, declining state support towards education has made the task of acquiring even basic education more difficult for the general masses. A polarisation in human capital formation seems to be taking place in the post liberalisation era. This inequality in EA thus accentuates socio-economic inequalities. In this context, a few steps may be suggested to improve the situation.

The problems plaguing the expansion of EA in India must be tackled from both the supply side and the demand side so as to enhance enrolment on one hand and reduce dropout on the other. The supply side is facing problems of serious resource crunch. Under pressure to decrease fiscal deficit, the govt, finds it least troublesome (and politically most safe) to curtail developmental expenditure in general and those on education (and health) in particular. Resorting to cross subsidy may solve the resource problem. We must recognize that basic education is the priority area and shorted be financed by resource mobilisation from technical and professional education. The quality of education and the method of teaching must be reoriented to make learning more fun than an ordeal for the children.

To increase educational attainment, school going must be made an attractive option for the students. This would not be possible simply by banning child labour. If the income of the families, especially those below poverty line, does not rise, the parents would never find it worthwhile to send their children to school. Preventing children from working would simply prevent their brothers and sisters from attaining whatever little learning opportunities they enjoy by virtue of their siblings' supplementary income. Cost of schooling should be limited by making school education less input-intensive and more dependent on classroom learning of basic maths, science, social studies and environment. Vocational education after Class VIII must be popularised, with greater link between industry and educational institutions. Loans for self-employment may be linked to outturn of ITIs and Polytechnics. Facilitating linkages between early childhood care and primary education, and involving local self-governance institutions in planning, implementation

and monitoring of education will improve the quality and reach of educational services. Devolution of funds at the local level may be attached to performance of schools in such areas as enrolment and retention. Closer monitoring of the situation by NGOs and involving them to impart education to the marginalized groups will also expand the education-net.

As a concluding comment, it must be said that we must sincerely attempt to fulfil the Constitutional obligation to provide free and compulsory education for all children, at least up to the age 14. Education must be seen as an agent of liberation and social transformation, and so strengthening the school system and its links with the community, leading to greater social harmony must be a social aim. We must keep in mind that the best investment avenue for us is to invest in our human capital as that has been the main ingredient of all the great waves of development that have swept mankind.

Notes

1. Gender Gap adjusted literacy rate is constructed by finding out the proportion of the lower rate relative to the higher and then multiplying the total literacy rate with this relative.
2. Gross Enrolment Ratio refers to enrolment at a specified level of schooling, irrespective of the age of student enrolled, to the population of children in the age group expected to be at that level of schooling as per prevalent norms on school enrolments. Thus, for instance, GER at primary school level would be the percentage of children in Classes I to V to total number of children in age group 6 to 11 years. This ratio is indicative of the general level of participation at a given school level and captures, to some extent, accessibility and capacity of the education system to enroll students. The ratio often exceeds 100 per cent due to inclusion of over-age, under-age, as well as repeating students for the concerned class, especially in developing countries. On the other hand, Net Enrolment Ratio refers to proportion of the population, of a particular age group, enrolled at a specific level of schooling, to the total population in that age group. Thus, for instance, NER for primary classes will be ratio of children of 6 to below 11 years enrolled in Classes I to V to the total number of children in the age group 6 to 11 years. The ratio overcomes the shortcoming of gross enrolment ratio as it captures age-specific enrolment of students in the classes they ought to be as per the prevailing norms for school enrolments. j
3. The fall in GER for Delhi perhaps is due to huge influx of migrants into Delhi, especially in recent years.
4. Completion rate is derived by multiplying primary enrolment rate with reciprocal of drop-out rate for relevant stages and year, e.g., CR for middle stage for 2000 is obtained by multiplying GER at primary in 1992 by $(100 - \text{DOR of middle stage during 2000})$. I
5. Educational infrastructure index is prepared by using modified principal component method. The variables included for this purpose are - spread of primary, middle and secondary schools and colleges, both per capita and per square km; teacher-pupil ratio in primary schools; and, per capita planned expenditure on education. For a discussion on the methodological issues on modified principal component method, see Kundu (1984). \

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RESEARCH NOTE

Vocational Training for Women in Informal Employment*

RatnaM. SudarsharT

Vocational training is a link between education and employment. After completing a basic level of general education, it allows students to acquire skills and training for selected occupations. The success of a vocational training course thus depends on the ease with which students are able to access jobs. The greater the ease, the better the course has judged the market and the demand side of the picture. Generally, when discussing vocational training, we are concerned with children in school and the alternatives available to them.

However, in the context of India, the fact is that a large number of children drop out of school before acquiring basic literacy or numeracy skills, and that a majority of young adults are thus to be found in various kinds of miscellaneous jobs for which schooling and literacy are not barriers to entry.

Although the usual understanding of vocational training does not extend to the role it could play in allowing young adults to make up for what they missed earlier - some basic literacy/ numeracy and certification of skills, this paper suggests that there is considerable potential in such an approach, and discusses a pilot programme that tries to do this.

Section I reviews the situation regarding informal employment in India and the niche that women occupy. Section II examines new approaches to vocational training that are able to reach out to those in informal employment, and Section III concludes with some suggestions regarding the best approach to vocational training for women in informal employment.

Women in Informal Employment in India

Out of a total workforce of around 398 million in 2000, an estimated 93 % was in informal employment. For women, the percentage is even higher, around 96%. In the case of agriculture, 99% of women (and men) are in informal employment. In non-agricultural work, 86% of women and 83% of men are in informal employment. This

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informal workforce, outside of agriculture, consists of employment in informal enterprises in the unorganized sector, as well as informal employment linked to formal enterprises. The latter includes sub-contracted workers as well as a range of other workers such as domestic service and other service work. In terms of absolute numbers, women are one-third of all workers in the informal economy. Certain sectors are largely informal - aside from agriculture, 94% of employment in construction is informal. (ILO 2002).

In addition to being in informal employment, women tend to be concentrated in lower wage work (Chen 2003) so that they are over-represented at the bottom end of the informal employment pyramid.

This picture of where women are located in terms of work is an outcome of several factors, including traditional gender roles and relations that have limited women's mobility and restricted their choices, lower levels of education, skills and training, and institutional and legal constraints that further make it difficult for women to undertake independent entrepreneurial activity.

In light of the nature of women's participation in the economy, vocational training and skill development programmes which are not confined to children alone but extend to young adults can be significant ways of empowering women in their working life, particularly if they can build on and strengthen their existing skills.

In this context, it is important to include in our view of possible skills, a wide range, including the skills that people already have and which they are using in their current work. The fact that earnings might be low or prospects limited does not justify the conclusion that workers in the informal economy are 'unskilled'. As Braverman put it, 'It is only in the world of Census statistics, and not in terms of direct assessment, that an assembly line worker is presumed to have greater skill than a fisherman or oysterman, the forklift operator greater skill than the gardener or groundskeeper, the machine feeder greater skill than the longshoreman, the parking lot attendant greater skill than the lumberman or raftsman.' (Braverman 1974: 430) Whether we recognize a particular ability as 'skill' or not is often related to the manner of its acquisition - skills acquired through experience, apprenticeship or handed down by older family members, rather than through any formal systems of training or certification, are often not recognized as such.

Approaches to Vocational Training

It has been estimated that 'there are 2484 vocations in India which can be clubbed into about 462 'vocational families'. Not more than 100 such 'vocational families' are actually covered by the existing vocational training infrastructure' (Chandra, in Chadha 2004: 34). The need to extend the scope and outreach of vocational training has been recognized by the Planning Commission. (Govt of India 2002, Tenth Plan).

The outreach of Vocational Training

While enrollments in school are high in Class 1, given the high drop out rate only a small proportion of those enrolled complete the full 12 years of schooling. In 1993-04 in rural

India, only 0.7% of women and 2.8% of men were graduate and above and in urban India 14.6% (both men and women). Levels of illiteracy remain extremely high, and according to the 2001 Census around 46% of women and 24 % of men are illiterate.

Only 5 % of the Indian labour force in the age group of 20-24 years has obtained vocational training. The corresponding figure in industrialized countries is much higher (between 60% and 80%) and even when set against developing countries this is very low (Mexico has 28%, Peru 17%). (Vol. 1, Part 2.1083).

From the 42nd Round of the NSS (1991), a detailed description is available of persons in the technical education stream. This data shows that 21.29% of rural males with some level of technical education are from the bottom four tractile groups. In the case of women, this percentage is 28%. In the case of urban males, the percentage is 19 and for urban females it is 14. However very few persons from the bottom four income tractile groups are to be found in pre-secondary institutions, whether government or private.

Or, to put it another way, few persons, and fewer women, without a secondary level of education, have been able to access technical education.

Under the Constitution of India, vocational training is a concurrent subject of State and Central Governments. While the Central Government has the responsibility of developing policy, training standards and procedures, certification, etc, the actual implementation is largely up to the State Governments. The Directorate General of Employment and Training in the Ministry of Labour, Government of India established around 50 Industrial Training Institutes for imparting skills in various vocational trades. The gender gap in the opportunities offered is evident from the fact that in 1974, only 4 ITIs and 1 Craftsman Training Institute were open to women, with a total capacity of 258 seats. Moreover these offered training in traditional trades.

Recognition of the inadequacy of this provision led to the Vocational Training Programme for Women launched in 1977. As a result of this effort there has been some expansion in the institutional network for women. This now includes

- a National Vocational Training Institute for women at Noida, and 10 regional institutes in different cities including Mumbai, Bangalore, Trivandrum, Hissar, Kolkata, Tura, Allahabad, Indore, Vadodara and Jaipur. These are able to train 3500 women at a time. A new initiative is the training in Business Services/Entrepreneurial Development to encourage self employment. This is a Central scheme
- under the State governments, a total of over 47,500 seats are offered to women in 224 women-exclusive ITIs and 551 wings in general ITIs. Around 20-25% of the seats are reserved for women in general ITIs.

Courses offered by these institutes are structured and have a defined curriculum. The duration varies from 6 months to 3 years, with 8 hours of training/ teaching on each working day. The entry eligibility is 10th pass or in some cases 10+2 pass. A few courses are open to those who are 8th pass. The minimum age at entry is 14 years of age. An attempt is made to enable post-training placement through Placement Cells at the

institutes. The target group for these courses is thus women with a basic level of educational qualification, who are in a position to study full time at urban centres.

Some short term courses have been developed to extend the outreach of these courses. These are of 2-8 weeks duration with flexible timings and around 2500 women receive training in these courses every year. But even these shorter courses are unable to meet the challenge of providing training to women with lower levels of education/literacy, and who may be unable to spend the whole day at a place of study.

Conceptual basis of vocational training/skill development

A distinction can be made between generic skills, vocational skills, and job specific skills.¹ Generic skills are 'transferable skills that are of general benefit and can be applied across occupational groups' including reasoning skills, work process management skills and personal values and attitudes such as motivation, discipline, judgment, leadership and initiative. Vocational skills are the 'specific 'technical' skills needed to work within an occupation'. Job specific skills are those 'required for a very specific function such as operation of a particular piece of machinery or employer wide skills (e.g. in-company quality standards or specific working methodologies)'. The need today is increasingly for generic skills.

The Report of the National Commission on Labour (2002) recommended a 'new modular approach to vocational training, which will aid multi-skilling, impart skills attuned to the needs of the labour market, and in consonance with the latest technology.' (Vol. 2:98)

This modular approach holds out considerable promise. It can be adapted to allow the development of several levels or 'tiers' of skills, allowing people to move between work and training and upgrade their qualifications in slow steps rather than necessarily all at once. A woman who initially trains in a certain skill, will after some experience want to take herself to the next level of skill. For example a woman trained initially in plant nurseries could graduate to more skilled tasks and could upgrade her knowledge of plant management and commercial possibilities. Another example is of health practitioners, certification being desirable for each of the following: Doctors (with the various levels of specialization that already exist), Nurses, Para-nurses, Midwives (with various levels of competence), Traditional healers (with various levels of competence), and Community health workers. We could build a system of continuous learning whereby a person can move from one 'threshold' to another as her competence and experience grows. This would require us to bring down the barriers that currently exist between various categories of skill to allow mobility through training, and allow even those without formal educational qualifications to access the first levels of skill training.

Women in informal employment thus both need generic skills, and the opportunity to upgrade their skills, to be able to stay competitive in a rapidly changing world of work.

¹ See for example the National Skills Task Force, established in the UK in 1988.

Pilot project for urban women in informal employment

Against this background, several attempts have been made especially by NGOs, to provide training and skill development to a target group that falls outside the reach of the ITIs and other more conventional approaches. One example, a programme that attempts to connect existing vocational training institutes with NGO effort in empowering poor women, is currently being piloted in Delhi and Bangalore as a project of the International Labour Organisation.² The project has identified a few partner NGOs through whom the training is given. New training modules have been developed, attempts made to develop market linkages and to provide a range of support to women to enable them to explore new work opportunities. The target group is women living in slum communities.

In Delhi, out of a total population of 13.8 million (as per the Census 2001), an estimated 30-40% of the population lives in slums. While for Delhi as a whole, over 87% of males and 75% of females are literate, one estimate for the slum population suggests that 40% of all workers and 65 % of women are illiterate here. Only 3% of women have acquired education above the secondary level (see Mitra 2003). The population of Bangalore according to Census 2001 is 6.52 million. Estimates of the slum population vary between 20-25% of the city's total population. The literacy rate for the city as a whole in 2001 stood at 88.36 % for males and 78.98 % for females. Among the slum population, it was estimated that around 49% were illiterate in 1992. (Benjamin 2000). As far as work and income sources are concerned, in both cases construction accounts for a large share and almost all workers are casual/ contract workers without security of tenure or job related benefits. In Delhi, a majority of the women work as domestic servants in neighbouring homes, or undertake sub contracted home based work. In both cities, the slums are characterized by poor drainage, lack of toilets, water and electricity, and poor housing.

Partner NGOs in the ILO- Government of India project are expected to undertake pre-project activities, to mobilize the community, help in awareness generation, provide support services such as child care facilities, nutritional supplements for children. Other complementary activities include medical aid, health check-ups, information dissemination about health, hygiene and sanitation, HIV/AIDS and STDs, workshops on constitutional rights and rights at the workplace. The NGOs conduct a needs assessment to identify the training that would be acceptable to women in the target communities. Efforts to form SelfHelp Groups have accompanied the training effort.

A recent review of this project threw some light on what are the positive aspects of such an approach, and what are the constraints that still limit the achievements of the approach. Started in 2001, a total of 1,600 women have been trained in Delhi and Bangalore under this project in the first 2 years.

Among the positive aspects of the programme, are the following.

² This section draws upon a report recently written on the programme. See ISST 2004.

³ See <http://www.ilo.org/public/english/region/asro/newdelhi/programs/empwmen.htm>

- Access: The project is especially intended to reach out to married women, and literacy is not a pre requisite.
- Flexibility in entry criteria and choice of courses: The project encourages women to acquire non-traditional skills such as electrical wiring, electronics components, assembling transformers and masonry. These modules are being developed by existing government training institutes.
- Holistic approach to training: the project seeks to provide training in life skills as well as the technical training. Support, in the form of child care or counseling, is essential for women to complete and use the training. Influencing attitudes and learning how to tackle day-to-day practical problems is a relatively invisible but not less valuable part of this project.
- Direct and indirect benefits: ensuring that women are able to benefit from the training through increased income is the single most important indicator of the effectiveness of the project. But there are also indirect benefits. Where women have been able to use their training, they have often become role models for the community, and encouraged many other women. One group that has learnt taxi driving, but have not yet been able to set up in business, nonetheless are proud to have asserted their ability in a traditionally male dominated field.
- Follow up and continued support: Counseling and placement has been a major thrust area of the project, and is needed in a situation where women's entry into new trades often encounters resistance from male members of the household or the community.

Thus, what distinguishes this initiative is not just the lowering of the entry barriers, but also the fact that training per se is supplemented by a range of supportive services and awareness raising information dissemination, both during the period of the training, but, very importantly, in trying to provide support even after the training is over. Although the project will judge its success by its ability to raise incomes and provide regular work to the women who have been trained, it is clearly a programme for 'empowerment' as well.

The project has faced certain difficulties, and these are revealing in showing the nature of the constraints that women have to overcome.

- A number of women, particularly in Delhi, opted for training in traditional trades such as textile/garment construction and embroidery. Some women, who had opted for training in non-traditional trades, were unable to continue working in these new areas, mainly due to household pressures, and were found to revert to earlier jobs.
- There is a shortage of trainers available to the NGOs, although expanding the numbers of trainers is itself an objective of the project.
- Perhaps the most difficult part of the effort is enabling newly trained women to access new jobs. Developing these linkages is one of the project objectives. Skills such as taxi driving, horticulture, machine knitting and transformer assembly, repairing household gadgets may require additional inputs other than

training to be able to translate into new opportunities - attitudinal change is needed even when actual employment opportunities and market demand are high, for women to gain acceptance and break through barriers. In some cases markets are fairly stable and there is a level of continuous demand such as in the case of domestic housekeeping. In other cases while demand exist it is more difficult to place poor women who compete with others whose contacts and social networks are stronger.

The project has confirmed that continuous support would be needed to allow women to overcome the age old barriers both within the household and in society and enter non traditional occupations. It has shown both the potential of success as also the difficulties of trying to change the existing patterns of income earning.

Vocational Training for Women - the way forward

Young married women with low levels of education, or none, might not appear to be a natural target group for vocational education. The discussion above suggests that there is some experience to show that it can work, but also that it needs sustained effort on the part of potential employers, institutions for credit and marketing, government institutions, NGOs, the women themselves.

Success in extending the vocational training/ skill development infrastructure to women in informal employment requires on the one hand the creation of appropriate material and modules, lowering the entry barriers, and creating a supportive environment within which the training is offered, which includes assisting in the setting up of facilities like creches, and developing market linkages. In practice, it is very possible to do all of these, but not without an active intermediary agent: which in most cases is an NGO (see for example, Mitra 2002).

Perhaps the stronger barrier is the countervailing force exercised by prevailing and traditional gender relations, which act as a strong force persuading women to opt for home based work in preference to other opportunities where the workplace is separated from the home. In response to this, the training-work link needs to actively embrace self employed/ home based work, and to develop appropriate marketing structures. The danger with home based work, apart from the feminist issue of static gender roles, is the likelihood of getting into exploitative contractual relations. This can be avoided if women workers are given visibility, encouraged to organize into groups, and thus strengthen their bargaining power and their information about the market. All of this is well done as an accompaniment to training.

In conclusion, training that is holistic includes various supportive activities in addition to the skill/vocational training per se, has great potential to reach out to young women even though they are out of school and may have household responsibilities after marriage.

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BOOK REVIEW

Mark OLSEN, John CODD and Anne Marie O' NEILL (2004): *Education Policy Globalization, Citizenship and Democracy* London, Sage Publications, ISBN-NO 7619 7470 9, p. x+326

In many OECD countries, in spite of the opposition from many educators concerned about questions of equity and justice, the proposition that schools should compete for students in an academic market place and the related assertion that individuals (or their parents) should have a greater freedom to choose the kind of education they will receive, have become the basis for widespread education reform. Individual choice is the core central value of neo-liberalism and market is the institution that provides the opportunity to exercise it. It is this effort at marketization of education that has been challenged by the authors in this book. In a well researched argument, they contend that neo-liberalism cannot offer viable policy responses to the emerging economic, social and political crises of global capitalism. Neo-liberalism is delivering obvious policy disasters in many countries and before long it may engulf the entire world. Before it is too late, alternative needs to be adopted. The authors present a case 'for the construction of a non-bureaucratic welfare state which has radical democratization as its central raison d'etre. Essential to the creation and maintenance of this robust form of participatory democracy, we argue, is a strong democratic system of public education that has education for citizenship as its primary aim.'(245)

Arguing for the concept of education as a public good, the authors see education in the pivotal role of constructing a democratic society and for the model of citizenship that such a conception of society entails. They seek to formulate a democratic model which seeks to incorporate principles of liberal constitutionalism in the context of communitarianism and allied to the concept of inclusion and trust. The communitarian context is used to argue that our identities are socially constituted and they depend on state action and community support. The democracy that the authors envisage is a comprehensive discourse of safety and security, freedom and autonomy, inclusion, fairness and justice, and equality of resources capabilities.(263) They believe that democracy alone can meet the challenges of globalization and liberalization. The whole edifice of education reform, for them, should be concerned with values of equity, justice and fairness, and these are the dominant values of a democratic society. Such values can only be promoted by the state in a democracy for the author feel that privatization of education cannot provide the social benefits for fostering such a society.

The intellectual journey towards this plea is both methodological as well as substantive. The authors have moved away from the scientific-technicist approach towards policy analysis because they believe that such an approach tends to legitimise certain form of state and liberal hegemony. Such a rejection of reading of public policy as

objective and value free, finds resonance in much of the current policy literature. Recent scholarly contributions have sought to contextualize a policy statement and see it as an outcome of political contestations and bargaining processes. Social, economic, political or cultural values need to be decoded in official policy texts to identify the real meanings of the goals and intentions of policy. Education policy is a forum of political contestation all over the world and therefore demands an approach which helps us to understand the reasons for such contestation and the processes that lead to policy as an outcome. Such an approach has now come to be known as discourse analysis in the policy literature. The authors advocate the use of this approach to contextualise education policy and have used methodological insights from Michael Foucault as framework of their study. They devote considerable effort in elaborating this approach for they have an explicit pedagogical purpose of presenting to students a theoretical framework that can help in deeper understanding of education policy and policy-making by the state.

Central to this methodological framework is the idea that policy is a product of power relations. Thus, a policy emerging from state is statement of power and in order to interrogate educational policy, the underlying assumptions of the official discourse need to be analysed and examined. State represents the influence of different social groups unevenly and, therefore, policy represents a perspective or ideology that will affect them differently. The result is that decisions regarding curriculum, assessment, role of teachers or that of relations of school management with local community, become instruments that express the ideology embodied in the education policy. This is the reason why policies of education reform must be seen as forms of political action. Thus, the contribution by the authors is not only about the objectives of education reform policies but also about the ways of reading these policies.

The substantive argument is built on a powerful critique of globalization and neo-liberalism. Central to their argument, then, is the claim that it is the imposed policies of neo-liberal governmentality, rather than globalization as such, that is the key force affecting and (undermining) nation-states today.⁽¹³⁾ Considerable attention is paid to elaborate the many facets of liberalism - both classical and neo-liberal - and the 'third way' of Giddens is shown to be inadequate response to the weaknesses of the liberal perspective. What comes under close scrutiny is the framework of policies based on the ideology of choice and competition and the role of state. They do well in arguing that not only globalization but privatization of education opens up possibilities of massive inequalities in distribution of resources and wealth as well as with respect to teaching and curricula. They come to this conclusion by analysing the liberal perspectives and the experience of countries that have gone on to dismantle their welfare state under the influence of these ideas.

Olsen, Codd and O'Neill have done a commendable job in presenting a highly theoretical but a very insightful study of education policy. They have forcefully demonstrated how the 'state reason' needs to be analysed to understand the role of education in the emerging global economy. It demonstrates a refreshing way of linking education with the ideological perspectives that provide the context in which a policy is

framed. This scintillating research study should be a must read for all those interested in education reform and policy. It is instructive and provocative at the same time.

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Mohan Nath DUBEY (2005) *Gifted and Talented Education* Mittal Publications, New Delhi, Price: Rs. 450.00 (Hardbound) pp. viii + 206, ISBN-81-7099-981-2,

There is great concern in the shortage of trained talent, as there is an extensive demand for them. It has been pointed that there are enough young people with high learning ability to fill all the manpower shortages, provided those young people are identify and given the necessary training. The author poses the question that why the system does not produce more highly literate and professionally trained people to meet the demand of the emerging market. In the American context, it is pointed out that their education system does not do as good a job with gifted children as it might or should do. For the educators, the present shortage of trained manpower and the resultant public interest in the education of the gifted children, present an opportunity to provide trained manpower to the society.

In the monograph under review, Mohan Nath Dubey presents an assessment and survey of research studies about the gifted and talented students, and touches upon the nature and the meaning of ingenerating guiding the gifted based on their learning styles and their education. The author attempts to relate the theoretical research and the empirical practices in actual problems situation in the education of the gifted. A talent or gifted child is defined as one who shows consistently remarkable performance in any worthwhile line of endeavour. It includes not only the intellectually gifted but also those who show promise in music, the graphic arts, creativity, writing, dramatics, mechanical skill and social leadership (pp. 17-18). In the same context, Joseph S. Renzulli and James R. Delisle (1982) opine that giftedness is composed of three characteristics: above average abilities; high level of task commitment; and high levels of creativity. Gifted and talented children are those possessing and capable of developing this composite set of traits and applying them to any potentially valuable area of human performance. Children who manifest or who are capable of developing an interaction among three clusters require a wide variety of educational opportunities and services that are not ordinarily provided through regular instructional programmes (p. 727). A model of excellence is presented by David M. Fatterman (1988) who maintains that a successful gifted and talented education programme offers a model of academic and administrative excellence that is generalizable to the mainstream of the American educational system. The key elements are: adoption, including quality commitments, leadership, diversity of curriculum and instruction, and a whole-person approach. It encourages inquiry, originality, self-directedness and creativity. The conditions include

significant teachers, high expectations, acceleration and flexible instruction, special educational opportunities and supportive parents (pp. 127-128).

Darwin's and Mendel's studies of variation in species led to similar interest in human differences in mental, emotional and social traits. In 1869, Sir Francis Galton published 'Hereditary Genius', which emphasized that heredity is the prime determinant of intellectual ability. This led to a debate about the contribution of heredity and environment as the determinant of intelligence and the later writers emphasized the inter play of both factors in the broad fulfillment of human potential. However, the publication of Binet and Simon Intelligence test in 1905, led to the special mental qualities of talented children. During the first decade of the twentieth century, schools were trying to provide classroom experiences commensurate with the abilities of rapid learners. In 1868, the St. Louis programme of the system of flexible promotions encouraged the academically able to complete eight years of schooling in shorter time without skipping over any part of the sequence. There were also summer-vacation schools, where children studied advanced subject matter enabling them to move into higher grades earlier. Another trend was enrichment as it catered to individualities of the talented. It enabled bright children to work on special projects independently in a self motivated manner in regular classrooms. These practices in and out of regular classroom are being planned not only for the academically able but also for those talented in art, music, dramatics, and dance. The present thrust of interest in America may augur a real step towards the ideal of full development of individual potential within a system of universal education.

Studies of intellectually gifted children indicate that they have emotional problems which may be attributed to their intellectual superiority. Another problem is that their development is often asymmetrical. Their mental superiority is not matched in degree by physical, social and emotional precocity. Giftedness is facilitated by home environment and value patterns of the families. In the realm of intelligence and intelligence testing, the author points out that intelligence test measures far more than an innate or developed ability. Many factors impinge on a test score which becloud its meaning. Current indications show a relative condition of "saturation" in identifying superior ability and motivating college attendance among culturally favoured strata of the society but other groups suffer and experience a loss of potential. It is emphasized that classification is no substitute for individualisation. What each child can do is more important than what the 'mean' of a segregated group can do. Therefore, efforts should be made towards the development of each student's ability. There is a need to study the process by which talent become actual, by which it develops.

The authors make a case for determining the learning style of gifted and talented and descents. It has been found that the gifted in science and mathematics have similar learning style traits, but they learn in patterns that are different in art, music, dance or language. They often reveal two or more perceptual strengths. In addition to being highly auditory, they often are highly visual and/or tactual and/or kinesthetic. They favour learning through a variety of activities, games, projects, independent studies and

programmed learning. For effective learning, teacher should provide instruction through all senses to allow for preferences, interests and variety needs. These students should be permitted to succeed at their own pace. They want to learn alone, tend to be either self motivated or desirous of obtaining feedback from the authorities in the same talent area. They often prefer low structure and flexibility when learning. For them two instructional strategies are suggested: Contract Activity Packages (CAPs) and Programmed Learning Sequence (PLSs). The author writes that the use of these instructional strategies will increase the pace of achievement and enjoyment of many gifted students.

Dube suggests a learning style model to counselling the gifted adolescents. It is emphasized that counselling through individual learning style can provide a powerful tool in helping each child achieve maximum realization of the potential, both academically and personally. The most significant finding of the international study of the gifted and talented was a strong preference for learning through tactile and kinesthetic perceptions. This finding suggests that the counsellors of the gifted and talented need to employ action oriented strategies and experimental activities in working with this population. For them, group counselling strategies include: role play, psychodrama, movement therapy and field trips.

At all levels, that is elementary, secondary and college, the major drive is to enrich the educational experience of students of superior intellectual ability. This approach depends upon the relative values of acceleration and homogeneous grouping. There is no agreement on the kind of acceleration that results in earlier graduation from a particular school level or completion of formal education itself, but there is agreement on the need to accelerate the studies offered to students of high potential. Another approach is the enrichment of programmes by providing greater depth in given areas, by adding new areas of learning and some times moving rapidly through the contents of particular discipline. Some institutions are experimenting on methods of improving articulation with institution at the next higher level in order to provide advanced opportunities for their bright students. At all levels, certain patterns appear to be constant. That is identifying students who have not revealed their potential; providing a programme with sufficient stimulation within the framework which does not put the bright student out of contact with the rest of the class; and maintenance of motivation at high level in order to avoid the phenomenon of under achievement which seems to affect both schools and colleges. There is a conflict between maximum coverage of cultural heritage and the development of programmes which place considerable emphasis on independent study by the student. A considerable amount of exploration and experimentation may be observed which, if continued, augurs well for development of programmes of continuously improving quality for students of superior ability.

The author suggests that the design for education of the gifted cannot be limited to the school and to children. It must include a programme of community orientation and participation. Moreover, the heart of any programme has to be a cooperative facility planning and individual teacher operation that make new and better learning

experiences available to the young people. The education of the gifted simply extends the principle of individual opportunity to cases of extraordinary ability. In subject matter, the aim should not be encyclopaedia coverage but stimulation of interest and arousal of motivation for continued study. The programme should be characterized by balance and breadth, but opportunity for specialization in keeping with child's interest should appear early. Teacher has an important role to play in the gifted child's intellectual growth.

In sum, the book deals with the various facets of the education of the gifted in the American context. The main source of the material is the yearbook of education of the gifted children. The studies cited in the bibliography are upto 1963. One limitation is that many studies cited in the book do not find mention in the bibliography. Readers may be interested in the Seventy-Eighth Year book of the National Society for the Study of Education: The Gifted and Talented, Their Education and Development; Chicago; University of Chicago Press, 1979. For various programmes of education of the gifted in the American and international contexts, the readers will find David M Fetterman's (1988) "Excellence and Equality" of interest. Joseph Renzulli and James R. Delisie (1982), based on the three characters of giftedness, above average general ability, high level of task commitment, and high levels of creativity, suggested further research in these areas (p. 728). Recently, there is news of Mr. Shivprasad K. Achar (aged 12) who showed interest in painting right at the age of three, given the National Child Award for Exceptional 2004 at the Mitsubishi Impression: Gallery Festival of Asian Children Art 2003-05, held in Japan to commemorate International Literacy Year. The boy is able to sketch human faces in just two minutes and has drawn the portraits of several celebrities on the spot (the Hindu, August. 4, 2005).

It is hoped that the book will be interest to teachers, administrators and policy makers who are interested in the education of the gifted and talented students. There is a need for a revised and updated version of the book. Hopefully, the author will publish a revised edition of the book highlighting Indian experience.

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S.Alan CANESTRARI and A. Bruce MARLOWE (eds.) (2004): *Educational Foundations - An Anthology of Critical Readings* Sage Publications, ISBN 0-7619-30301-0, Paperback, pp.244, Price \$32.95

Books like the one under review are not written in India. It is not that we do not know how to write, only, we do not have the clientele for such books. The reason is that teachers in this country have no voice either in selecting a class book, framing curricula, re-sequencing the already fixed and pre-determined classroom activity or changing the attitudes towards reading/learning or the guts for improving upon 'the banking concept of

education.' Our Teachers' Colleges have some of the foggiest teacher educators that one could think of—the ones who will never read a book beyond the notes made available to them by shady characters when they were students, and go round the universities either minting money or politicking when they ought to have been busy performing their jobs. I have personal knowledge of a university's education department that had only professors and no readers and lecturers and they continued to teach their 'specialized' (?) subjects the notes for which they had prepared when they had joined the department. The Dean of university department told me that none of them was prepared either to change his/her area of interest (?) or allow any change in their favourite personalized schedules. The apex body (NCTE) intended to improve upon the scenario, is busy burying deep its skeletons (notwithstanding Anand Sarup's Report) and distributing largesse to its favourites.

These prefatory remarks are necessary to contrast the two facets of the same problem. Consult and compare any approved textbook in India on Foundations of Education, and appreciate what I am trying to say. One need not be a philosopher to know that every nation needs 'great' teachers who not only know how to perform in classrooms but who also have the patience and wisdom to communicate when necessary. No student is dumb. We must define the job, prepare for it and perform.

The present book contains VI parts and 24 chapters dealing with all the constituents of the transactions called teaching and learning. Each part begins with an introductory note defining what to expect next. It deals systematically with each concept involved in the process. Part I deals with Why Teach? Part II defines: Who are today's students? Here the use of word 'today' has some embedded significance. Part III is all about: What makes a 'good' teacher? We all know who is a good teacher but few know the process and mechanism for preparing one. It is easy to cite the Vedas to define 'goodness' in a teacher but the NCTE has failed in defining the process of making one. Socrates was a great teacher because he knew that each individual has to look within to find answers. Good teachers do not believe in the 'banking concept of education'. Instead they help students to realize their potential and find answers. In a finite and indeterminate world there are no final answers. Each one of us must find his or her answer to the emergent questions. Part IV talks of: What do good schools look like? Indians need to read this section a little more closely than the others. Reason: we dare not have Summerhill (being hidebound by traditions of disallowing innovations and chronological-age barriers of admission policies) and feel no need to learn anything about "discovering the essence of education". Part V talks of: How should we assess student learning? This part should be made mandatory for all Indian examination boards to read. Or, may be the NCERT should internalize the lessons contained therein. "How does one develop a critical voice?" is the last part of the book, which I am sure, is likely to help our educational administrators more than others in the system.

The editors have explained the reason for 'assembling' this book "because (they) believe that the current textbooks written on the foundations of education are too broad and too politically cautious to engage students or help them develop their own critical

voices". It is customary in India not to be critical of anything without political patronage. Or else, one could invite trouble in one form or the other. In the USA, however, university teachers can with immunity" feature provocative, engaging authors whose views are politicized but whose writings and opinions matter not because they are gadflies, but because their ideas work and because their achievements as teachers, principals, and policy shapers, are notable."

The most important purpose of this book, the editors' claim, is "to help teachers develop habits of critical reflection about schools and schooling before entering the classroom." I wish those in India who read it also reflect on what is happening around us and think about what can be done to improve the situation we have ourselves willingly landed in.

Let us see what does the book say.

The first part deals with the question: "Why Teach' when there are deplorable conditions of our schools, the lack of parental support, the disturbing behavior of the children, and general disrespect for the teachers by public at large? We should teach because someone must take care of Milagros; someone must discover talent in Stephen—a Negro boy; and, someone must appreciate the reason why teachers' adverse remarks kill the joy in learning and being. The most significant observation in Horace's compromise is the remark, "Most jobs in the real world have a gap between what would be nice and what is possible", hence people compromise.

Part II deals with the class and race composition of classroom. It is the expectations that determine the quality of products. One cannot expect much from those who expect little from poor, working class and culturally dominated groups. The example of President Bush is cited to show that even at the highest levels people can fail to realize that it is not the class or colour that matters most in becoming but the way one deals with children and gives them hope and encourages them to outperform the cliches that force them to remain indifferent to academic achievement. Teachers, like Rosa Hernandez Sheers, are needed to inspire the low performers to become high achievers. This is true for the disabled children too. They have all the potential to become performers but they need teachers to help them realize the same. This Part deals with revealing flaws in the system that talks of 'inclusive' education but is apparently unprepared for the task. The message is to make most of the classroom mosaic. Not only we have a fair idea about the racial composition of a class, we find that a selected problem is also dealt with as an illustration.

The third part is all about the making of a good teacher. We have Paulo Freire telling us how teachers follow the banking concept of education in which the student is supposed to be carrying an empty head that needs filling up. Here 'knowledge is supposed to be a gift bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing.' There is an interesting chapter on 'stir-and-serve recipes of teaching'. This is precisely what we do most of the time.

Part IV deals with the issue: What do 'good' schools look like? Do good schools have good buildings or do they boast of good results? Does the principal of such a school announce: "Student performance on reading, writing, and math has been consistent enough for the state department to label the school 'high performing' and 'a model school where exemplary teaching and learning are the norm?'" Such an announcement would have gladdened the hearts of any Indian parent who shells out huge sums of money to listen to this kind of music.

But the editors have some other kind of answer to this issue. They talk of Paideia Proposal that includes "the suggestion that inequalities due to environmental factors must be overcome by some form of school preparation—at least one year for all and two or even three for some." They also talk about the different objectives for different children. They plead that uniform objectives of basic schooling should be three-fold. (1) Basic schooling should facilitate ample opportunity for personal development. (2) Basic schooling must do something to make them all good citizens. And (3) When they all grow up, they should be able to engage in some form of work to earn a living. Let me not make any comment on this proposal because nothing of this is likely to be ever implemented in India where it is difficult to satisfy the greed of her elected representatives alone. They amass wealth in the name of the poor and the illiterate and conspire to keep them poor—both educationally and economically. There is no other reason to explain why literacy targets must be shifted every 10 years to meet? Therefore, the innovation about which Mortimer Adler talks (in column 3) is going to remain a pipe dream even in the best of the schools. Adler declares specialization to be the 'worst cultural disease' because for him while a specialist is welcome but a generalist—a cultivated human being is decidedly most welcome; nay he is the one that American society should declare to be 'ideal.' The next essay concludes with the remark "What would it have been like for these children to have had learning plans that allowed them to pursue their interests at their school? The schools must allow children through innovative plans to pursue their interests. A. S. Neills' Summerhill is the one school that all advanced societies must try to possess. I wish it were possible to have one in India too. Maybe we shall have one too.

Part V deals with Assessing Students' Learning. This is one section that is likely to help us in this country. Should we give grades or award marks? We should define first what is a 'good' assessment. As the author discusses grading rationale he discovers that they are there in number. (1) Sorting; (2) Motivating students to work; and (3) Providing feedback to students for their future guidance. There are a few tips too for those who cannot help but grade. I particularly liked the write-up 'The Courage to be Constructivist'. This particular essay is directed towards those who believe in linear reforming without realizing that one cannot go on fixing raising standards without knowing that it is the learner who controls learning. The way out is to be constructivist and there too one should be cautious. 'The Standard Fraud' is a warning to those who have thus far not appreciated the logic behind fair distribution of resources on education. Implied message in the essay 'Teachers as Transformative Intellectuals' is to help realize understand their

role in society. This is one essay that I wish we should have written and widely circulated. "The political and ideological climate does not look favourable for teachers at the moment. But it does offer them the challenge to join in a public debate with their critics as well as the opportunity to engage in a much-needed self-critique regarding the nature and purpose of teacher preparation, in-service teacher programmes and the dominant form of classroom teaching. Similarly, the debate provides teachers with the opportunity to organize collectively so as to struggle to improve the conditions under which they work and to demonstrate to the public the central role must play in any viable attempt to reform the public schools".

Part VI 'Developing a Critical Voice' exhorts teachers to raise their voice against all politicians and educational reformers who without any knowledge about the fundamentals of education tinker with it mindlessly. The basic problem facing both students and teacher preparation programmes is that when students feel 'closest to classrooms of their own, they become less secure as they reflect on the incongruity between what they are learning at the university and what they are seeing in public school classrooms'. The question that stares in their face is: Have the teachers colleges done job satisfactorily?

Who will answer the question?

The problems this book addresses are not only real and serious but they force us to reflect about teachers and students, indeed about the whole system that has gone astray. Everyone who has the power is eager to interfere with the system. But alas! teachers who ought to have occupied center stage shirk the responsibility to reflect and raise their voice.

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Carolyn Medel ANONEUVO (ed.): *Lifelong Learning Discourses in Europe*. Hamburg: UNESCO Institute for Education; ISBN 92 820 1130-5, (2003), pp.216 (Paperback)

The book has a rich collection of discourses held at the conference held on "Lifelong Learning in Europe: Moving Towards EFA Goals and the CONFINTEA V Agenda" in Sofia, Bulgaria. It was a unique conference covering three policy discourses: Lifelong Learning, Education for All, and Adult Education. A rich experience of various stakeholders have been blended in these discourses and has been given the shape of this collection. An attempt is made to provide a glimpse of a wide range of unevenness of economic, political and social conditions obtaining in countries; a plethora of policy and programme implications for education and learning; and the diverse backgrounds and range of experiences of participants. For the benefit of the readers, the book has been organised into three parts: Unpacking Lifelong Learning Discourses; Facing the Challenges of EFA in Europe; and Reviewing Adult Education Practices. The lifelong

learning programmes which are followed in the OECD and European countries, have made remarkable progress; experiences of these efforts are of great importance to the developing world in order to improve their adult education programmes which are otherwise not in a position to achieve the desired goals.

Nikolaus van der Pas reappraised the of lifelong learning policies in Europe by making a reference to the Jacques Delors book entitled "The Treasure Within" which is education in itself and very important to all the citizens and to all our societies. Quoting the famous ancient Chinese proverb from the year 645 BC, "When planning for a year, plant a corn; when planning for a decade, plant trees; and when planning for life, train and educate people." This highlights the importance of providing education to the citizens in a country. EU declared in 2000 for the first time, that EU should be the most competitive knowledge based economy in the world, but in order to achieve this objective, a lot of policy measures have to be looked into concerning the economy, social field, technological field as well as the educational field. But to achieve a homogeneous objective of heterogeneous variables is a difficult task; as well the diversities which exist in the countries have also to be taken into account. Therefore, members of the EU agreed upon three common objectives to: dealing with quality and efficacy of education and training; the problem of access to training and education; and the openness of policies both to the society and the world at large.

Lifelong learning questions in particular, the economic sense of too much learning in just preparing people for better employment or making them better workers or keeping them as good workers as we go through adult life. And point of view of the European Union is that it is not just "employment", it is not just "the economy", it is very much "society", it is very much "people".

There is a felt need for giving people a sense of purpose; giving them a level of education which prepares them not only for a job but also makes them complete human beings - in terms of their health, in terms of their participation in economy, society, and democracy.

In order to meet the challenges of lifelong learning, Rita Sussmuth emphasised the accelerating pace of world wide exchange of information and knowledge against the background of increasing economic and social globalization, and mentioned that lifelong learning would be a key factor in promoting social justice and development in this continent and the world community. It is important to provide constant opportunity of further and continuing education; she further delineated the need for applied and learner-oriented learning and placing the responsibility in the hands of the people who will actually use it. The public-private ownership can be garnered to hold the responsibility of the task of lifelong learning in the countries. Referring to the traditional role of universities as places of learning for young students, the new emerging "Universities of the Third Age" are becoming popular in providing lifelong learning activities. Even the programmes of institutes for International Cooperation of the German Adult Education Centre focus on European Unification. The important programmes are of "Future of Europe" and "Network Intellectual Learning in Europe (NILE)". These programmes

envisage building bridges of understanding between people of different socio-cultural backgrounds through education and dialogue.

Christos Doukas tried to provide a policy framework in the context of Europe. He referred to restructuring of adult education in Greece which has responded to the changing demands of work, citizenship and personal life of citizens and also provided lifelong learning. The new time-space compression of learning demands the redefining of literacy requirements for new workers and new citizens. The lifelong learning has rather focused on acquisition of multiliteracies in the domains of communication of multiliteracies, information and economic enterprise, with a view to assume responsibility of upgrading their competencies to deal with continuous changes. In this process, the role of an educator is that of partner, coordinator and promoter of learning process. And this process is not based on a centralised hierarchy but makes the learner participate actively. Lifelong learning projects in Europe should aim at involving community in the learning process by making learning as the centre of developing dimensions, such as culture, care for the city, participative city, enterprising city and promoting the city's regeneration in terms of its wellbeing and social cohesion. Such "learning cities" have partnership, participation and planning incorporated into their lifelong learning activities. In a nutshell, this makes a citizen active, capable of learning doing, and living with others and developing oneself.

Evangelos Intizidis focused his discussion on the necessity of skills required for new economic activities of the information and knowledge society. This would particularly enable citizens in the European Union to enter into the fast expanding employment opportunities in information technology and the like areas. The shift from education to learning emphasises "learning how to learn" which can promote personal characteristics of the citizens and enhance their motivation and capacity to get occupied with autonomous self-administered, independent learning.

The second part has focused on the interface between EFA and adult/lifelong learning programmes. The papers focused on Sir John Daniel's reference to the efforts of countries and need for educating all the people of the world. Reference was made to various strategies pronounced in the world conference on "Education for All", held in Jomtien, and the subsequent World Education Forum held in Dakar. Mentioned was also made of the restated six goals of EFA, and also twelve-point strategy for achieving them. Many partners were energised to take up action on the Dakar framework. UNESCO coordinated the proceedings efforts of all these layers. The conference was participated by representatives from 160 countries and the six goals to be achieved included eliminate gender disparities in elementary education, training, early childhood care, quality of education, and adult literacy.

D. Neiburga of Latvia felt that the EFA programme should aim at developing networking and coordinated approach of the existing systems in the country. The emphasis was on partnership building, advocacy and communication, and participation at regional and sub-regional networks. In the absence of such programmes the existing programmes focusing various issues tend to function in isolation. The OECD, European

Union and the Latvian National Commission for UNESCO, have started sharing the responsibilities in managing and financing EFA planning process in Latvia which is enabling it to move forward in achieving EFA goals.

Marta Soler Gallart focused the discussion with reference to Spain. While delineating the discussion, emphasis was made on how the society has witnessed many transformations such as industrialisation etc and at the end has entered into an era of information society. The adult learning was facilitating the learning through a variety of literary circles such as "Agora Spot", a computer space located at the periphery of Barcelona which has enabled the people to share their learning; it is running successfully. Adult learning has thus a lot of value as it contributes to the definition of the society at many levels. Alisher Ikramov of Uzbekistan made a presentation on the mobile training activity of the community learning centres which as being supported by the UNESCO. Focusing on the lifelong learning education programme in order to support the EFA, many programmes have been initiated, such as non-formal education, early childhood and adult education. The mobile technical centre is equipped with all the necessary equipment and personnel and has the capacity to organise programmes at various places. This would enable people to access information and training. Esat Sagcan of Turkey also emphasised how Turkey took up a massive programme of adult literacy programme in the country in the early 19th century. The literacy campaigns had the focus on improving literacy and providing income-generating vocational skills. Turkey also produced a number of literacy material and organised programmes for its citizens.

The third part of the book has reviewed the Adult Education Practices in some of the countries of Europe, particularly Ireland, Serbia, Finland, Croatia, and Albania. A variety of activities were undertaken in order to improve the Adult Education Programmes in the European countries. Ireland has National Development Plan for achieving the goals of Adult Education, covering many aspects which in turn encompass the future development of the country. Even the Serbians who suffered from the wars and had to cope with the programmes of education of the adults have delineated policies and taken lessons from EFA in order to provide lifelong learning to its citizens. In case of Finland, there is a challenge on account of the increase in the old age population and the difference of skills acquired among the old and new generations. There is a demand for more competent personnel causing unemployment problems in the country. Through Adult Education Programmes, the government intends to upgrade the skills of its citizens to face the challenges of employment, and a provision to the tune of 146 million Euros has been made in the budget for achieving the goal of adult education by 2010.

Damir discussed the role played by the Croatian Association of Adult Education and Open University in Croatia. Although there is no provision of funds, it has been successful in organising programmes for the adult learners. In Albania, the teacher training programmes have been undertaken as part of the adult education programmes and teachers were trained systematically in order to upgrade their skills. Bettina Bochynek delved with the issue of mobilisation process for achieving the goals of lifelong learning programmes. Referring to the learning festivals which were first

attempted by the National Institute for Adult and continuing education (NICAE) in UK, the author tried to focus on the success stories of such campaigns, festivals and literacy weeks for promoting adult learning in more than 35 to 40 countries. Publicity of the programmes worked as eye openers to the adult learning programmes as well as promoted the goals and objectives of EFA and lifelong learning programmes with a visible impact on the society.

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Linda CHISHOLM (ed.): (2004) *Changing Class: Education and Social Change in Post-Apartheid South Africa*, Cape Town: HSRC Press, ISBN in South Africa: 0 7969 2052 4 PB and in the rest of the world: 1 84277 590 1 HC (Paperback), Pages: 448+xvi, Price not mentioned.

The book deals with the development of the system of education in the post-apartheid (post-1994) South Africa. Apart from the *Introduction* by the editor, there are 16 chapters contributed by different scholars. It can also be seen as an attempt to present some of the reforms in education carried out by the democratic political system in South Africa and to discuss their impact on social development. It covers several important aspects of education in South Africa, viz. educated unemployment, compulsory elementary education, student fees in primary education, race and class in education, decentralisation of education, privatisation of education, language and medium of instruction, curriculum formulation, assessment in education, teacher education, unionisation of teachers, higher education, involvement of NGOs in education, early childhood development, youth development, adult education, and private contracting of educational services.

The different articles in the book have more or less adopted the same scheme of discussing the different aspects of education from the perspective of transition from the system under the apartheid to that of the new democratic rule. Many of the contributions have highlighted the fresh challenges the educational system in South Africa is facing under the new political dispensation. Following are some of the notable trends of the current educational system in South Africa as presented in book.

- a) The new government made nine years of school education compulsory for all children. However, against the declared policy of the African National Congress on providing free school education, the government encouraged collection of school fees. The parents from the local community by majority decision fixes the amount of fees. Exemption from fees is given in deserving cases. One notable observation made by the author is on the absence of any data to show that school fees lowered enrolment in primary schools.

- b) The programme of de-racialisation of schools has had limited effect. The process has occurred in the case of Africans moving into the formerly English-speaking white, Indian and coloured schools, and not vice-versa. Class factor plays an important role in this process. It is the few wealthy among the blacks that are able to enter the formerly white schools. On the whole, schools have remained mono-racial. In the few cases of racially mixed schools, assimilation in favour of the dominant race/class is the pattern of integration. That is, the disadvantaged continue to be disadvantaged. The change has enabled the expanded middle class, which now includes also the coloured people, to consolidate its privileged position. "The story of education in the new South Africa is, in these terms, essentially a story of the reconfiguration of dominance in relation to race, class, gender and language dominance" (p.111).
- c) There has been a significant increase in the number of private (independent) schools in South Africa. Private schools in South Africa do not include the state-aided schools owned by private agencies. These are known as 'public schools on private property'. In 2002, the sector of the private schools in South Africa was almost three times the size of what it was in 1990. This growth is attributed primarily to the differentiated demand among the lower-middle class, working-class black families for better and different schooling.
- d) The Constitution of South Africa has added nine local African languages to the previous two official languages of English and Afrikaans, and gives 'everyone the right to receive education in the official language or languages of their choice' in public educational institutions. But the policy has not been translated into practice. In higher education, English and Afrikaans remain the languages of learning. In reality English and Afrikaans continue to be dominant in the educational system of South Africa.
- e) Some of the changes that have taken place in higher education are growth in private institutions, expansion of distance education, decline in enrolment in humanities, and shift in the focus of student organisations from protest to financial assistance to needy students. However, the profile of staff has not changed. The academic staff in higher education remains largely white and male. Institutions of higher education continue to bear their racial birthmarks in terms of dominant traditions, symbols and patterns of behaviour.
- f) South Africa has had a strong NGO sector operating in elementary, primary and secondary education. Government does not recognise the role of NGOs in policy making, but expects their service in implementing the policy. However, in practice many NGOs have played a significant role in providing data for policy making. Advocacy - commitment to the poor and the disadvantaged - had been an important function of many NGOs in the past. It often involved being critical of the existing power structure. This role of the NGOs has become difficult, because the new government considers that it represented the poorest and most oppressed. The NGOs have become more dependent on the government as they

get funas routed through the government for providing education as a service. Some of the NGOs that found it difficult to function outside the apartheid environment have disappeared.

- g) As an illustration of the changing state of youth development, one of the contributions the book presents is the case of a leading youth development organisation in Johannesburg - the Joint Enrichment Project (JEP). In response to the political change, the JEP had to change its resistance discourse under the apartheid, to development discourse. It now offers life-skills and employment-preparation programmes to young adults who are out of school and unemployed.
- h) Adult Basic Education (ABE) in South Africa at present is firmly in the hands of the government, and is characterised by centralisation and formalisation. It functions under the ethics of instrumentalism wherein emphasis is on helping adults adapt to the deteriorating social order. But the approach under the ethics of emancipation (or Paulo Freire's education for liberation), according to the author of the chapter, "could contribute more effectively to social change in the country. We recognise the limited role of ABE in economic development, and remain sceptical of its ability to address social, political and community problems" (p.399). (9) A new trend that has set in is the education business of marketing or outsourcing educational services to various for-profit and non-profit organisations as contractors to the government. This is also facilitated by the availability of donors or sponsors of education projects, such as the United States Agency for International Development (USAID) and the British Department for International Development (DFID). The author of the chapter expects dangers if the government does not have a regulatory policy in the matter. "In the absence of government policy to encourage the continuation of a strong NGO sector, it is likely that the proportion of private for-profit service providers will grow at the expense of the NGOs" (p.430).

The above are the main features of the current educational system in South Africa as elaborated in the different chapters of the book. The editor's overall conclusion on the main trend in education is that the changes have not in any significant way transformed the situation of inequality in education. That is, the educational system in South Africa has not undergone a change corresponding to the change in the political system that resulted in the overthrow of the apartheid. "Educational development and the emerging system have favoured an expanding, racially-mixed middle class. In relative terms, serving the racially-mixed middle class, necessarily gives whites an initial advantage" (p.7). The editor believes "that social theory that privileges concepts of class, power, conflict and inequality has more to say about the unfolding character of South African education than does human capital theory" (p.11).

The contributions in the book have covered almost all the aspects of education in a developing country. The authors have done justice to the individual aspect of education handled by them in so far as they maintained the perspective of transition from the situation under the apartheid to the democratic system and tried to discuss the emerging

issues. Overall the book is a good presentation of the current educational scenario in South Africa.

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S. SIVASUBRAMONIAN: *Sources of Economic Growth in India 1950-1951 to 1999-2000*. Oxford University Press, New Delhi, 2004, Hardbound, pp.353 ISBN: 019 566 6011

Sivasubramonian one of the distinguished scholars in the field of research of Indian national accounts and the author of a significant study of Indian nation income for the years 1900-46, [*The National Income of India in the Twentieth Century*, Oxford University Press, New Delhi 2000 (revised)] produced another major interpretative work, *Sources of Economic Growth in India 1950-1 to 1999-2000* on the causes of India's accelerated growth in the last half a century since Independence. It provides a detailed statistical framework of distinguished scholarship which will prove to be of immense help to economists and economic historians and a wonderful reference work for further studies. Using the growth accounting approach first developed by Edward Denison for the US in 1962 [*Why Growth Rates Differ?* (1967); and *Accounting for United States economic Growth 1929-1969* (1974) (both published by the Brooking Institution, Washington D.C.)], and applied by Bakul Dholakia in India [*The Sources of Economic Growth in India*, Good Companions Press, Baroda, 1974], Sivasubramonian estimates the contribution of various factor inputs to growth rate of GDP in India for the period of five decades since independence, 1950-1 to 1999-2000 and also for the intermediate periods 1950-1 to 1964-5, 1964-5 to 1980-1, and 1980-81 to 1999-2000. The first sub period was characterised by moderate growth, deceleration during the second and acceleration of growth during the third. Decade-wise growth rates are also estimated.

The study presents a detailed evidence on and causal analysis of factors affecting growth of output. The author estimates the growth of employment by age, sex and by level of education in-different sectors of the economy. New estimates on the main components of gross and net fixed capital stock and inventories are also presented and how they differ from the official estimates are highlighted. Weighted average of different inputs is taken so as to obtain a measure of total factor productivity, which gives a measure of rate of technical progress. The impact of foreign trade, structural changes in output and inputs, changing energy inputs, and the effect of weather fluctuations on agricultural performance is considered while accounting for growth.

Following Denison and Angus Maddison [*Explaining the Economic Performance of Nations: Essays in Time and Space*, Edward Elgar Publications, Cheltenham, 1965], Sivasubramonian presents growth rates which are compound growth rates based on terminal years that do not reflect fluctuations in the data during the intervening years and differ from the trend growth rates shown in an earlier study by the author.

The sources of growth are analysed in terms of changes in inputs like labour, capital and land and changes in output per unit of input. The growth rate of GDP was allocated between total input and total output per unit of input in proportion to the growth rates of the two series. The contribution of total factor input was allocated among labour, non-residential structures, equipment, inventories and land in proportion to the products of the growth rates of the input indices and their average weight during the period. The principal determinants of output are labour, capital and land. The estimated number in the workforce is taken as the measure of the quantity of the labour input. Age-sex combination and educational qualifications are considered as quality of the labour input, and their effects on labour input are separately estimated. The effect of the changes in the age-sex composition is measured as the weighted average of the products of the percentage distribution of workers in each age-group and the corresponding wage differentials. The contribution of age-sex composition was negligible during 1950-1 to 1964-5 and was negative during the next period 1964-5 to 1980-81. It amounted to 5 per cent of labour input during the acceleration phase.

The author explicitly takes into account the effect of education on the quality of labour input productivity. The impact of education on labour input is measured by an index which combines the percentage of workers with different levels of education using weights to reflect the wage differentials between them. Similar to Dholakia, the author uses the assumption that two-thirds of the wage differentials can be attributed to differences in educational levels, namely, 'not literate', 'literate up to primary', 'middle', 'secondary and higher secondary', graduate and above'. The ratios of workers are multiplied by the corresponding earnings weights and added to derive a measure of the education effect. These values are then expressed in index form with the base value of 1993-94 as 100 to obtain education index.

The author estimates that despite the progress made in education, its contribution to growth has been minimal at only 3 to 4 percent of GDP growth during the different periods. The estimate of the contribution of education to the growth of real NNP made by Dholakia for the period 1948-9 to 1968-9 differs considerably, being 6.8 percent as against 3.6 percent derived in this study. But the two estimates are not directly comparable due to differences in data, the distribution of workers by education and the weighting system.

As regards to capital, the combined estimates of net fixed capital stock available in the National accounts Statistics 2001 have formed the basis of the study. Denison has pointed out that a correct index of capital services would fall somewhere between the indices of gross and net stocks and it would be much closer to gross stock than net stock. He used the simple average of gross and net stock indices in *Why Growth Rates Differ?* and a weighted average of the indices of gross stock and net stock based on a straight line depreciation, with the weighted gross stocks and net stocks in his study on *Accounting for United States Economic Growth 1929-69*. A weighted average of gross and net stock indices with weights three and one respectively is used in the present study.

It has been estimated by the author that nearly 41 per cent of the growth in GDP was realized through the increase in non-residential structures and equipments during the acceleration phase. The contribution of fixed capital was the highest during the last twenty years as it was slightly lower at 38.3 per cent in the slowdown phase and much lower at 23.4 per cent in the initial period. The contribution of inventories remained more or less steady at between 2 and 3 per cent over the different sub-periods.

The index of output per unit of input is derived by dividing the index of output by the index of total factor input. The author has tried to develop measures relating to some of the determinants of output per unit of input. The determinants of output per unit of input considered by the author are structural change, that is gains from reallocation of resources from agriculture to other sectors, irregular fluctuations in output per unit of input caused by weather, impact of foreign trade, energy effect, economies of scale and other determinants like industrial disputes etc.

The contribution of advances in knowledge to production growth cannot be measured directly and hence it is taken as residual of the contribution of output per unit of input after deducting separately estimated contributions of structural changes or gains from reallocation of resources, effect of irregular fluctuations due to weather, foreign trade effect, energy effect, and economies of scale and it amounted to 23.4 per cent of the total GDP growth for the period as a whole, and was lowest during the deceleration phase and highest during the acceleration phase.

According to the author's estimates, the importance of the three major determinants has varied over the periods. During the transition stage of the economy from a state of stagnation to moderate growth, total factor productivity was the most important source of growth, with its contribution declining to very low level during the deceleration phase. Labour input played a more important role than capital input during deceleration and the reverse was seen during acceleration of growth. The contribution of education, which reflects the possible improvement in the quality of labour input, and that of machinery and equipment, which reflects the adoption of modern technology, have not yet become as important as they should be in rapidly growing economies.

The economic analysis of growth broken by rural-urban regions, by economic sectors and by various short and long periods is detailed and highly insightful. Very few studies of this kind are available on Indian economy, analysing the sources of economic growth. Production function methodology was used by some in estimating the contribution of education to economic growth in India (e.g., G. Psacharopoulos: *Returns to Education*, Elsevier, 1973; J B G Tilak: *Contribution of Education to Economic Growth in Andhra Pradesh*, *Manpower Journal* (1980), and Jackie Loh, "Education and Economic Growth in India: An Aggregate Production Function Approach," in *School Effectiveness and Learning Achievement at Primary Stage*, New Delhi: National Council of Educational Research and Training, 1995). But the present study is much more detailed, is comprehensive in coverage, rigorous in its analysis, sound in methodology and rich in empirical estimates. Denison's method was applied by many researchers on estimating sources of economic growth in other countries like Japan, Korea, and European countries,

but not many studies were conducted in India. Research scholars find the methodological details provided here extremely useful in any attempt by them to replicate similar research at national or state levels in India. Scholars will also find detailed estimates on several parameters such as capital stock, inventories, deflators, factor input indices, etc., given in several tables of the book very useful and hence will remain indebted to Sivasubramonian for such a significant contribution.

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Adrian ZIDERMAN (2004): *Policy Options for Student Loan Schemes: Lessons from Five Asian Case Studies*, UNESCO, Bangkok, Paper Back, pp. 117. ISBN: 92-9223, 037-9

This study is the outcome of the UNESCO, Bangkok, and HEP, Paris sponsored. Regional Studies on student loans in Asia under which five in-depth case studies of loan schemes in some Asian countries were undertaken. These countries included: Mainland China and Special Administrative Region of Hong Kong, the Republic of Korea, the Philippines and Thailand.

The study underlines the following objectives of the loan schemes: (i) Budgetary objectives (income generation); (ii) Facilitating the expansion of higher education; (iii) Social objectives (improving equity and access for the poor); (iv) Meeting specific, manpower needs; and (v) Easing students' financial burden.

It may be stressed that the most important objective would be the social one i.e., improving equity and access for the poor. This would underline the need for introducing subsidized loan scheme, whose distinguishing features would be grace period for repayment, below market rates of interest and repayments not fully linked to inflation.

The study brings out very interesting details about the loan schemes introduced by the countries chosen for study. The salient features of the schemes in the countries under study are worth noting: China is implementing two national schemes, one subsidized by the government and the other operating on commercial lines. The latter scheme, operated by the banks, has, however, a limited coverage. There are no formal guarantors on loans; students personal credit acts by way of guarantee. The repayment period is short. The scheme does not act very equitably - the chances of poor needy students receiving a loan are scanty. Hong Kong is implementing one of the oldest schemes among the countries under study. The scheme is implemented by an autonomous public loan organization - the Students Financial Assistance Agency. The loans are interest free under the local student finance scheme and interest bearing NLS loans, for which the student status is the only requirement. While the former scheme is implemented with government subsidy, the latter operates on a 'no gain no loss' basis. The allocation of student loans is based

mainly on considerations of equity, efficiency and adequacy. In Republic of Korea there are six government supported loan schemes for higher education covering 16 per cent of students. The largest of schemes, run by the Ministry of education and Human Resource Development and the Government Employees Pension Corporation, cover 86 per cent of all student loans. The Ministry of Education scheme uses commercial banks for a number of loan scheme functions: loan fund provision, loan administration, and repayment collection etc. It targets poor students who get subsidized loans. The scheme covers tuition fees but not living expenses. In the Philippines the student loan scheme, (Study, now, Pay Later), started in 1976, is restricted to poor students, enrolled in public universities. The scheme has, however, never operated on a large scale. The loan amount hardly covers tuitions fees. Thailand introduced an extensive student loan scheme in 1996, targeting disadvantaged students at the upper secondary and tertiary education stages. It covers about a quarter of students at the upper secondary, a third at the tertiary level and half of all students enrolled for teacher education. The scheme is run through the National Student Loan Scheme Committee, which receives liberal subventions from the national budget. The rate of interest is one per cent and the students are required to pay only a small fraction of the value of original loan. The scheme, though run for needy students, is not very effective.

It would be evident that there are considerable differences across the several schemes in terms of parameters like organizational structure, student coverage, loan schemes, objectives, funding sources, loan allocation procedures and collection methods. However, all the schemes have one common element: they offer the traditionally mortgaged type loans which means repayment spread over specified period in fixed monthly payments, a designated rate of interest on the loan and a maximum loan period.

The study, while discussing the financing of loan schemes, refers to two 'widely spread misconceptions' regarding capital provisions for students loans. The first misconception, according to the study, is that student loan will require the government to provide additional funding for loans in the absence of any other funding source. It has been argued that in the pure cost-sharing model, no additional govt. funding is necessary to finance a new loan scheme as long as students' enrolments are constant. "Cost sharing entails a shifting of the existing financing burden from the government on to other beneficiaries of higher education (in this case, students or their parents)".

The argument does not appear to be very convincing in that in case the universities have to take resort to raising tuition fees and other living expenses to offset the reduction in government subventions, the social objectives of the scheme will be compromised. Further as admitted in the Report, if all students take out loans to pay their fees, the cost to the government of funding loan scheme is equal to the total reduction in the direct budgetary support to universities.

The second misconception mentioned in the study is that loans fund can be regarded as a revolving fund in the sense that amount received from repayment, building up over time, will finance new loan commitments. The basis of this assumption has been questioned by large repayment defaults and government absorbed administrative cost.

The arguments adduced are valid to some extent. The revolving fund concept has, however, to be juxtaposed against out-right grants, in which there are no repayments. In the case of loans, however, there are some repayments and, therefore, the possibility of generating a fund cannot be ruled out as a figment of imagination.

The Study gives interesting data about loan recoveries, which is the major problem faced by countries implementing loan programmes. As per information available, Republic of Korea has shown the highest recovery ratio (64 per cent) in respect of loan administered by the Ministry of Education. But in the same country, the percent of recovery in respect of Government Employees Scheme is 40. China has also shown a recovery ratio of 53 per cent. The lowest ratio is in the case of Thailand (8 per cent). The problem is serious, but needs to be tackled in a sympathetic manner.

The study has identified a few key issues in design and reform in loan programs and has attempted to draw some of the major lessons that emerge from the comparative analysis. The author argues that: In order to achieve national impact, the loan scheme should be sufficiently sizeable; income contingent loans, which would lower the repayment burden in the earlier years, are to be preferred. Mortgage type of loans, involving repayments over a specified period with a designated rate of interest imposes a heavy burden of repayments. Very often, it leads to repayment defaults. The objectives of the scheme should be clearly defined. Commercial bank operated loan schemes are not popular because most of the students, particularly the poor cannot provide collateral to cover the offer nor offer proof of credit worthiness. The government should intervene by supplying the initial capital for the loan. It is imperative to measure the financial viability of the loan scheme in terms of loan repayment ratio, which may necessitate tightening up planned conditions of repayment. Individual loans should be of adequate size to meet the needs of students including living expenses. Subsidizing loans is justified only where loans are aimed at directly helping the poor. All potential loan recipients should be treated equitably - i.e. all students should have equal chances of receiving loans and all loan recipients of the same economic status and level of need should receive loans of the same size and under the same repayment conditions. In order to reduce repayment default, heavy repayment burden should be avoided. Repayment evasion may also attract penalties and legal action in some cases.

The Sum Up The study is of immense value to the developing countries, who are struggling to find resources for tertiary education as also to provide access to weaker sections of the society to institutions of higher education. The analysis of the country reports has been done with utmost competence and meaningful conclusions have been drawn. While considering student loan programmes, it has to be borne in mind that education is not a commercial activity. In that context, the low rate of loan repayments should not be regarded as a negative point. Educational loans cannot and should not be equated with other loans like car loans and housing loans. Further, loan recoveries can be streamlined by establishing an organization, exclusively for dealing with the various aspects of loan schemes. In this connection, the proposal endorsed by the Indian Central Advisory Board of Education (CABE), to set up a Higher Education Finance Corporation

to deal with problems of providing easy loans to educational institutions as also to students, is worth considering.

The study is recommended to academics, educational planners and administrators as also the general public, who are concerned about bringing about equity and excellence in the field of higher education by facilitating the entry of meritorious but economically and socially backward sections of society to institutions of higher education.

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Jayashree ROY: *The North-East Elementary Education*, New Delhi: Gyan Publishing House, 2005, Hardbound, pp. 294. Price Rs. 790.00/-. ISBN 81-212-0852-1 [and]

Lyndem BILORIS and Utpal KUMAR DE (eds.) *Education in the North-East India: Experience and Challenge*, New Delhi, Concept Publishing Company 2005, Hardbound, pp. 392, Price Rs. 750.00/-. ISBN 81-8069-063-6

The North-Eastern region comprising of seven states (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura), also called as 'Seven Sisters', is distinct in terms of historical background, geographical setting, socio-economic conditions, cultural features and politico-administrative set up. The region is predominantly hilly, rural and tribal. Its distinctiveness also lies in the immense diversities reflected in its sub-cultures represented by over 200 different tribes. The traditional tribal authority structure in the form of autonomous council is well established and functional. Since the British colonial days, the authority structure has been recognized and protected by successive governments. The region is also characterized by internal differentiation (in terms of diverse religious and tribal groups) and external international exposure (i.e. sharing borders with Bangladesh, Bhutan, China and Myanmar). It has also experienced the highest impact of Christianity and has been affected by the immigrants from the neighboring countries. Due to its distinctive features, it needs special focus and perspective. Unfortunately the region has not received adequate attention of the policy makers and administrators, and academicians.

There is a severe scarcity of relevant and adequate information about the region and its people. The arrival of two new books on the north-east is, therefore, encouraging and heartening to those interested in the region. The books fill the information gaps about the region to some extent. 'The North-East Elementary Education' by Jayshree Roy is the published version of her thesis. Besides tracing the origin and growth of elementary education in the region, it analyses the current status of elementary education in terms of schools and school infrastructure (teachers, buildings and other ancillary facilities). It highlights the problems of female literacy, girls' participation in elementary education and decentralization of education. It also presents a detailed account of elementary

education in Mizoram and Nagaland as two case studies. The volume 'Education in North-East India' edited by Biloris Lyndem and Utpal Kumar De is an outcome of a seminar on 'Education in the 21st century North-East India' held in 2002. The papers in the volume explore the status of education in the region, with discussions on a wide range of issues relating to literacy; elementary, secondary and higher education; women's education; and distance education.

Although the North-East is one of the least developed regions of the country, there is a remarkable diversity among the states and groups of people. For example, as per 2001 Census, on the one hand, the average literacy rate of the region is almost at par with the overall national literacy rate (65.4 per cent); on the other hand, three states of the region have literacy rates less than the national average. The region has a state like Mizoram ranked as the second most literate state in the country. But it has also a state like Arunachal Pradesh, which is ranked as the third least literate state in the country only above Jharkhand and Bihar in ascending order. Both the books have discussed at length the literacy scenario and the related issues in the region.

Both books cover school education especially elementary education at length. Achieving 'universal elementary education' is an uphill task in the region, as the region suffers from high drop-out and low achievement, even in states with high literacy rates. A major problem related to elementary education in the region is high proportion of untrained teachers. The special drive of teacher-training through distance mode, that is currently being advocated, needs to be pursued more vigorously.

Educational development in the north-east is marked by stark gender disparities. Tied with the traditional household economy and tradition, girls' access, participation and performance in school education is limited. However, the nature and extent of the problem varies from group to group. A sub-group approach needs to be adopted for improving educational condition of the girls in terms of facilities and removal of gender bias from the pedagogic process.

The paper in the seminar volume also deals with issues of expansion and quality of higher education. Although the region initially had only a few higher education institutions, in the last two decades, a number of such institutions have been started. Today the region has 12 universities, 397 colleges, 13 engineering and medical colleges and 29 teacher training institutes. Like other regions, however, higher education in the north-east is suffering from a quality crisis. Following NAAC (National Assessment and Accreditation Council) recommendations, higher education institutions are upgrading their facilities and initiating faculty development activities. The central government has made special provision for institutional development and capacity building of higher education institutions in the region. The papers in the volume also deal with the impact of globalization on higher education reflected in increasing demand for technical and professional education. The management and commerce education have been discussed as case studies in this regard.

On the whole, the books deal with various issues related to education in the north-east. They supplement each other in the analysis of literacy and elementary education.

Roy's book, being based on doctoral research and concentrated on elementary education, is more organized and systematic than the edited volume. The latter, being a collection of seminar papers, attempts to cover almost everything under education in the North-East. As it happens in many a seminar, several unrelated papers are presented. If the papers are on the same theme, there is repetition of data and issues. This is glaring in this volume too. Barring a few exceptions such as girls' education and decentralization, the books only scratch the surface and do not get deeper into issues. All the same, considering the paucity of literature on education in the North-East, the books are useful.

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Jeff JONES (2005): *'Management Skills in Schools: A Resource for School Leaders'*, A Sage Publications Company, Paul Chapman Publishing, ISBN: 1-4129-0110-3 (Paperback) pp: xiii + 221, Price: £ 18.99.

Mr. Jeff Jones has elaborated in his book on the philosophy that an effective and efficient team is the key to a good management. He states that effective leadership relies upon mastering a wide assortment of skills ranging from policy making to motivating staff to achieving high standards. The book is a guide for the newly appointed aspiring and existing team leaders. It gives practical guidance, points for reflection and a self review exercise for professional practice.

The first chapter deals with 'Being and Becoming a Highly Effective Team Leader'. Herein it is stated that there is an intimate relationship between 'knowing, understanding and developing' (p. 1) oneself and the team members. Devoid of setting targets the book in utmost simplicity quotes Tzu-Ssu philosophy of self knowledge and self realization as a focal point of leadership. Self analysis can pave way to pick and develop qualities of leadership. Boydell's (1985) model of self development involves changes in thinking, feeling and willing. Gauging your competences as a team leader in Table 1.4 (p. 9) is an activity for a person who wants to develop leadership qualities.

In 'Leading and Developing Teams' it is important 'to give opportunities and put demands on people which enable them to grow as human beings in their work environment' (p. 19). Leadership involves building an effective team to carry out ones purpose. It is a reciprocal relationship between those who choose to lead and those who follow. Identify actions that can strengthen ones current approach. 'Motivating Members of the Team' is the 'most quintessential management skill' (p 41). Well known motivation theories of Maslow, Herzberg et al and McGregor have been discussed in detail. Motivation is a process that influences our behaviour pattern. It is important for the leader to listen, interpret and read the body language to understand and influence colleague's motivational behaviour.

'Managing Time and Priorities' offers techniques to 'plan your time'. Time management is self management - it is the focal point of organizing ones life. It is 'our

costliest expenditure' (p. 54) and hence one must utilize it to the best. Team development can be developed through 'Effective Delegation', (p. 72). Tasks and projects should be delegated and obtaining feedback is important.

In 'Improving the Effectiveness of Team Meetings' it is stated 'the time spent on any item of the agenda will be in inverse proportion to the sum involved' (p. 85). Meetings should clearly state the purpose, be focused and help take decisions. In 'Handling Conflict Situations Successfully' it is rightly quoted by Michael Einser, "*Something's wrong when there's no conflict*" (p. 104). Conflict is natural disagreement. Analysis of the conflict, scale of problem, current scenario, designed situation and possible agreement can solve conflict which is actually a healthy sign of development.

'Leading the Team through Strategic Decision-making' requires 'to be able to decide' (p. 121). A leader should help his/her team in decision making using analytical techniques. A SWOT could help in this. One must define the original issue, review the reason for the issue, review the action that was earlier taken, analyse from previous actions the result. Then evaluate its effectiveness and implement it. Effective 'Performance Management Reviews' forms the basis for assessing the three key elements of performance: 'contribution, capability and continuous development' (p.139). The schools should be committed to, 'develop all teachers effectively to ensure job satisfaction, high levels of expertise and progression of staff, in their chosen profession' (p. 139). The interpersonal skills required are: building rapport, questioning skills, listening skills and feedback skills. Tone, volume, pitch, rate of speech are paralinguistic features of communication which can make or mar leadership.

'Coaching for Better Team Performance' is all about 'paying attention to people' (p. 162) in other words 'helping them to improve beyond their present capability' (p. 163). Team leaders require knowledge, understanding and behavioural qualities to manage coaching relationships. An Action Research Culture is an educational enquiry into our own educational practices systematically. The active research process has been described in a number of ways by different writers. But essentially it consists of 4 steps namely plan, act, observe and reflect.

School performance as a function of the managerial styles of school Principals is what this book is all about. All other indicators like academic performance, infrastructures, values and co-curricular activities are important benchmarks for a performing school but what gives an edge to an effective school is the behaviour and managerial style of the school Principal, Head Teachers and Class Teachers. 'Point for reflection' is an activity for practitioners to reflect on their managerial styles of leadership. The details in the content itself give a brief about the book. The quotes given in each chapter, just below the title, in fact aptly summarize the central idea of the chapter. Professional training courses can be organized on developing the skills of the school leaders.

Joel SPRING (2004): *How Educational Ideologies are Shaping Global Society: Intergovernmental Organizations, NGOs, and the Decline of the Nation-State*. Lawrence Erlbaum Associates Publishers, Mahwah, New Jersey and London, pp. 215, ISBN: 0-8058-4916-5 (paperback)

Joel Spring presents a stimulating scholarly reading on how ideologies are shaping educational development, and how educational ideologies in turn are shaping the society, particularly the global society. Spring chooses four important ideologies in this context: (a) the nation-state ideologies that are rapidly getting weakened, (b) the most powerful neo-liberal ideology of the World Bank that is increasingly becoming all-pervasive, (c) the human rights policies and approaches, and (d) the recently emerging ideologies of the environmentalists.

There are fundamental differences in goals, contents, and methods between the educational interests of the nation-state, neo-liberal policies, human rights approaches, and environmentalists' policies. Nation-state policies stress loyalty to the nation-state, a strong passion for the country, and national citizenship. Even when the citizens of such countries work in global markets in their own or other countries, they work for the interests of their own nations, carrying their nation in their hearts. The nation-state ideologists believe that public schools are essential ingredient in the birth of the nation-state; they are necessary for creating a common experience that 'gives individual membership in the *people* and *nation*':

The neo-liberal policies change the overall atmosphere dramatically away from nation-state. They reduce the role of the government and promote free markets in every aspect of the society - education, health, water, economy and society as a whole. Given the economic and political power of the World Bank, most other international organisations, including specifically WTO, also design their policies promoting the same - the World's Bank's neo-liberal policies. Global regulatory organisations, global mass media and the global flow of population - all weaken the nation-state.

While human rights approach appeals to the 'global morality' in provision of human rights to the citizens, it also sets national agenda at the global standards. Human rights education also aims at creating activist global citizens, and may shun the requirements of moulding citizens to make a nation-state. So is the agenda of the environmentalists. Though, both question some aspects of neo-liberalism, human rights education and environmental education, along with neo-liberalism stress new forms of non-nationalistic forms of patriotism and citizenship. They redefine nation-state philosophy, and give new interpretations to several concepts including democracy, governance, people's participation, etc. These ideologies promote global citizenship based on ethical standards of the western world. Neo-liberal organisations like the World Bank, the champions of the human right and environment also align with global civil societies, international NGOs in this regard with different agendas of their own.

Spring unravels some of these aspects and provides valuable perspectives on each of these aspects. The book starts with an insightful discussion of how nation-state

philosophy guides educational development. Taking the examples of Singapore and USA, Spring describes how educational policies were used for the formation of a strong nation-state. Particularly based on an analysis of Singapore's experience, where leaders remain firmly committed to strengthening their nation-state and use education to promote development, Spring sums up the message in clear terms: 'think global, but be rooted in your country'. Chapter 2 describes the free market policies of the World Bank in education that aim at preparation of educated workforce for a global free market. The author critically examines the influence of neo-liberal policies of the Bank on Latin American countries, East Asian countries, and some African countries and now the World Bank, through its policies and loans, contributes to the globalisation of the education policies, and how they thus extend the reach of colonialism. Spring does not believe that the industrial and consumer paradigm will help in maximising the quality of life for all people. Neo-liberal ideologists argue for providing modern education to indigenous cultures, girls and others, so as to develop an industrial and consumer society dominated by free markets. World Bank's "support to schooling is designed to educate students who will support the activities of free markets and neo-liberal governments." The educational strategies of the neo-liberals aim at global homogenization of economies and political systems into free trade markets.

The role of the global civil societies and their approach to human rights is the focus of Chapter 3. Human rights ideology is not just human; it is also a political ideology. Spring notes that rights to education includes an education in human rights. Chapters 4 and 5 are devoted to a discussion on environmental ideologies. According to Spring, environmental education is "the most radical pedagogy shaping global society," as it encompasses several dimensions of modern development, including human rights and peace education, concerns about economic justice, global ethics, etc. Environmental education challenges modern forms of development, new consumerism, and favours protection of indigenous cultures, spiritualism etc. It challenges industrial form of schooling in favour of biospheric paradigm. Environmental education does not reject the idea of consumerism; it promotes 'sustainable consumerism'. Sustainable consumerism does not promote austerity that Mahatma Gandhi practiced and preached; it does not mean consuming less, but consuming differently, even more.

With the spread of globalisation on economic front, and global standards in human rights and environmental aspects, national education systems eventually become a globalized economic and political institution. The conflict of ideologies and approaches among themselves, and their conflict with national policies may result in a world divided between conflicting civilisations. Spring is critical of all the ideologies described above. Nation-state ideology has attempted to control the minds of the citizens and reduce the freedom of thought; neo-liberal free markets have used everything including media to serve their own interests by manipulating the public mind about democracy, human rights etc., and actions aiming at their own immediate gains in the markets and voting booths. If civil society is trying to do something good in the area of human rights and environment, exerting pressures on the World Bank, WTO and other such international

organisations and governments, the corporate power is becoming a mighty stumbling block.

Spring's absorbing exploration of various ideologies makes *How Educational Ideologies are Shaping Global Society* a compelling reading, even if one does not necessarily agree with Spring's views and analysis. It also compels the reader to re-examine some of the emerging theses on the impact of various ideologies on development of societies.

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