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Democracy, Equality and Education[#]

Ghanshyam Shah*

Abstract

Democracy and education for all are closely related. Education has potentiality to develop 'critical thinking', necessary for political participation and decision making. In the last six decades, education has to some extent reshuffled inequality. It is no longer the privilege of upper castes. A microscopic few of different social groups and women have attained high level of education to improve their life chances. But, in the process, a vast majority of the population is getting eliminated from availing quality education and opportunities to improve their life chances. The education system, being a part of the larger political economy, has evolved the hierarchical and discriminatory institutional structure that provides 'good quality' education to a selected few. Elimination process starts with non-enrolment and drop-out right at the primary stage. The proportion of students by social groups and economic strata changes from primary to higher. As the accelerator moves up from secondary level to higher education, the place of the disadvantaged castes-classes sinks in the education system.

Revised version of the Eighth J.P. Naik memorial lecture delivered on 30th August 2012; arranged by Education Records Research Unit, JNU, New Delhi. I thank Sukhadeo Thorat for discussion on the subject and his useful comments on the paper. I thank JNU for providing this opportunity.

* 204, Santoor Apartment, Opp. Doctor House, Parimal Crossing, Ahmedabad-380006.
E-mail: ghanshyam.shah2008@gmail.com

Introduction

The modern democratic form of government is the outcome of the growth of capitalism in Europe. Over a period of time its vision, however, has changed with assertions from below. During the anti-colonial movement the notion of democracy in India got articulated to the original notion of democracy—‘the rule of all the people rather than of the western liberal notion of rule of the propertied class or Marxist notion of rule by the proletariates’ (Macpherson, 1966: 24). After Independence, India accepted co-existence of the democratic system with a growing modern market economy controlled by the propertied class. It was hoped that the control of the latter would decline in the course of time with the empowerment of the people. Is the country, after well-over sixty years of independence moving towards that direction? Not only political theorists but all those who stand for democracy need to address this question.

Besides liberty, social and economic equality¹ is the core of effective and viable democracy. Inequality is multidimensional, hence complex. Though inequality in income and wealth are crucial, other forms of discrimination and inequality, to be specific socio-cultural and patriarchal are also important. They are in fact intertwined. Reduction in one sphere does not necessarily reflect in other spheres. Equality before law is necessary but not a sufficient condition for free and equal participation of all people in democratic system particularly those who are at lower strata—culturally subjugated and exploited. Individuals need to have equal political rights to combat inequality. Without this, legal equality remains ‘hypocritical and ineffective’ (Tourine, 1997: 22). Inequality in substance hampers effective functioning of the political system and violates liberty of those who are at the lower layer of the social pyramid². Greater inequality results in lesser possibilities for effective and meaningful participation of the deprived sections in political processes. Their vulnerability in social, cultural and economic spheres provides them less space to be equal with those who are in upper echelons of the systems of production and reproduction. The capacity of the powerful to manipulate choices of the vulnerable is related to the extent of gap between the two. Wider inequality hampers possibilities for the deprived to assert their voice. The system can be effective in substance with the capabilities of the citizens to deliberate the issues and dilemmas critically, express their opinion and also respect dissenting views, negotiate with opponents and are able to challenge the dominant elite and ruling class.

Social and economic inequality is definitely a stumbling block in democratic functioning. But a society with gross social and economic inequalities cannot wait for the introduction of democratic systems till it attains equality. Nor can it wait till a cultural renaissance emerges. That never happens. The processes of cultural awakening—spread of ideas and critical discourse—building an egalitarian social order and democratic systems have to go hand in hand. This is not an either or situation; nor does one follow after the other. That is, democratic system in the post-colonial society waits the pre-requisites, i.e. equality and intellectual ‘rationality’ are met. Democracy is both an end as well as means. Greater equality in all spheres strengthens democracy and vice versa. Political democracy with rule of law

¹ Equality is not merely confined to economic status, though it is very important. It also includes social components such as gender and culture. I use the word ‘equality’ in all inclusive sense.

² Rawls (1971) defines the principle of justice for common good. The common good in the principle is the provision of compensating benefits for the least advantaged members of society.

and the system of elected representation is a process and has potentialities to generate critical debate as well as evolve strategies to eradicate discriminatory practices and exploitative relationship. On its own it is not an achievable ideal. It is possible if the system moves to its logical end. The system provides opportunity to the have-nots to participate in electing their representatives and develop capabilities to negotiate their terms with political aspirants and the latter are compelled to seek the support of the former to get elected. Education can play significant role in this process.

At an empirical level, the parliamentary democratic system has succeeded to some extent in developing the capabilities of the people which includes a section of the deprived and the exploited. It has widened the political base more than a non-democratic system. It has become more inclusive than the past. Creating an egalitarian democratic social order is an ongoing—perhaps never ending—long term process with ups and downs. It is not an evolutionary natural process in the Darwinian sense. It calls for constant intervention from those who cherish this ideal for ‘common good’.

Education and Social Transformation

Education and democracy are interlinked. Tomas Mann observes, ‘democracy wishes to elevate mankind, to teach it to think, to set it free. It seeks to remove from culture the stamp of privilege and disseminate it among people, in a word, it aims at education’ (Sexton, 1961: 287). Education has potentiality (or expected from) to develop critical faculty of an individual to understand the complexities of social and physical environment. It strives to develop ‘capacity for constantly expanding the range and accuracy of one’s perception of meanings’ (Dewey, 1917, 1976: 123). Education is expected to develop capabilities so that one is able to interrogate the received knowledge, values and evolve and/or endorse alternative value system, perspective for desirable social order and search for ways and means for liberation and social transformation. Moreover, education enables one to develop skill to improve one’s work and production. It also expands choices and enhances participation in political and social spheres.

Education can improve social efficiency. With this premise political leaders wedded to ‘social transformation’ emphasizes on spread of education. They, however, formulate different contents and pedagogy depending upon their vision of society. Gandhi developed his philosophy on education and its pedagogy. He founded a university and floated several schools. Rabindranth Tagore had his vision on education. In the late nineteenth century Jotirao Phooley started schools to impart modern liberal education for dalits and women. He also demanded special facilities for the depressed classes in educational institutions. Dr. Ambedkar repeatedly emphasized importance of education for the emancipation of the oppressed. He called upon dalits to ‘educate, organize and agitate’. He asserted that “we may forego material benefits of civilization but we cannot forego our right and opportunity to reap the benefit of the highest education to the fullest extent as education is the greatest material benefit”. (cited in Chalam 2008:23). In the 1920s Dr. Ambedkar campaigned for Universalisation of education in the Bombay province (Vo.2 39-54). During the freedom and social reform movements the champions for Women’s ‘equality’ also worked for women’s education. All such political and social leaders established institutions to impart education of their vision.

The architects of the Indian Constitution acknowledge significance of education for development of citizens. Dr. S. Radhakrishnan emphasized, "It is essential for any constitution which is drawn up to make all the citizens realize that their basic privileges—education, social and economic—are afforded to them; that there will be cultural autonomy; that nobody will be suppressed; that it will be a Constitution which will be democratic in the true sense of the term, where, from political freedom we will march on to economic freedom and equity..." (11th December 1946).³

In the given composition of the Constituent Assembly the Constitution did not place education in the category of a Fundamental Right of all children. It found place in the Directive Principle with a promise that "the State shall endeavour to provide within a period of ten years from the commencement of this Constitution (1950), for free and compulsory education for all children until they complete the age of fourteen years". It is interesting to note that there was a debate whether the responsibility for free and compulsory education be confined to 'primary' education as few members wanted to amend the clause. Dr. Ambedkar rejected the amendment. He argued, "The clause as it stands...that every child shall be kept in educational institution under training until the child is of 14 years. If my Honourable Friend, Mr. Naziruddin Ahmad had referred to Article 18, which forms part of the fundamental rights, he would have noticed that a provision is made in Article 18 to forbid any child being employed below the age of fourteen. Obviously, if the child is not to be employed below the age of fourteen, the child must be kept occupied in some educational institution. This is the object of the Article 36, and that is why I say the word 'primary' is quite inappropriate in that particular clause, and I therefore oppose this amendment."⁴ He noted that 'right to education' is closely related to ban on child labour. That means situation would be created so that no child need to labour for livelihood of his/her own or his/her family.

In the Constitution education was initially the State subject. The first Minister of Education of the central government, Maulana Abul Kalam Azad wanted that the central government should have more control than the States in evolving national education policy and its implementation. The Union government, however, could not formulate overall national educational policy in the 1950s, though number of programmes were launched to spread education at different levels. The first education report on the secondary education in 1953 stated that aim of the education is to develop 'democratic citizenship'. The education must equip students with habits, attitudes and qualities so that they bear burden of life in the changing economic life, and for social and national integration.

The first Education Commission was formed in 1964, headed by D S Kothari. The Commission carried out its task in a changed political scenario. Early euphoria of free and new India ebbed by the late 1950s. Dominant interests—industrial-business bourgeoisie, zamindars and newly emerging rich peasants—not only openly protested but also got organised in electoral politics against Nehru's dream for socialistic pattern of society. At the same time middle caste peasants began assertion for power within and outside the Congress party. Their upward mobile strata was ignited with aspiration for 'modern' life and wanted to move beyond agrarian economy. Modern education was their immediate need. Thus, through 'the Congress system' (Kothari 1964) they successfully built pressure on the

³ Constituent assembly debate, 11th December 1946.

⁴ Ibid.

government for expansion of educational institutions in rural areas. At the same time unrest among the lower classes for land and wages was mounting. In the midst of this scenario the Commission spelled out its plan for education in a perspective of future desirable Indian society for national development. Its perspective of national development was to build democratic, secular and egalitarian society. According to the Commission, education was a major instrument for peaceful economic, social and political transformation. It was conscious that education was a double-edged weapon, wrong education may lead to chaos and disintegration, and right kind of education could bring effective national development. The Commission asserted that if the existing educational system of education be changed significantly, the socio-economic and political revolution that society needed would also be 'automatically triggered off'. Granting that education per se alone cannot bring social transformation, it, however, hoped and advocated that 'the most effective way of breaking the vicious circle in which we find ourselves at present is to begin educational reconstruction in a big way' (Naik 1982:52). The Commission emphasized that universal elementary education for the children needed to be taken up on priority basis. For that it strongly proposed 'common school system'. Later, the parliamentary committee also endorsed this recommendation and asked for its immediate implementation (Ibid.: 79). In 1968 National Educational Policy (NEP) statement was formulated.

The main principle of this policy was to provide 'free and compulsory education'. It called for strenuous efforts 'to equalise educational opportunity'. The policy also emphasised that strenuous efforts should be made for the early fulfilment of the Directive Principle under Article 45 of the Constitution which seeks to provide free and compulsory education for all children up to the age of fourteen. Suitable programmes should be developed to reduce the prevailing wastage and stagnation in schools and to ensure that every child who is enrolled in schools successfully completes the prescribed course. Later in 1976 with the Constitutional Amendment, education acquired a place in the concurrent list to develop overall national policy and also for its effective implementation through the states. With this amendment the Union government accepted a larger financial responsibility and also evolved policy for 'the national and integrative character of education, to maintain quality and standards'.

Campaign for Universalisation of education by a section of civil society continued. The Citizens For Democracy, a civil society organization under the leadership of Jay Prakash Narayan and Justice Tarkunde initiated a campaign for 'Education for Our People'. They believed that educational transformation 'must be an essential part of egalitarian movement for social transformation'. They prepared 'A Policy Frame for the Development of Education' (1978-87). J P Naik played a very important role in formulating the citizens' policy. The campaign continued unabated irrespective of the parties in power. In 1986 the government revisited the NEP. The Parliament adopted it again with certain changes. But the governance continued as usual. Education was not on agenda of any political party. At the same time assertion of upward mobile and vocal sections of different social groups which include feminists for their inclusion in education opportunities was mounting. Public interest cases were filed in courts. The Supreme Court of India held in *Mohini Jain vs State of Karnataka* that "the right to education is concomitant to fundamental rights enshrined under Part III of the Constitution" and that "every citizen has the right to education under the Constitution."

The government, following the structural adjustment programme in the economy on one hand, and rising identity politics in the post-Mandal period, on the other, modified the NEP

again in 1992. It took note of 'considerable expansion in educational facilities' but 'neither normal linear expansion nor the existing pace and nature of improvement can meet the needs of the situation'. The policy conceded that "India's political and social life is passing through a phase which poses the danger of erosion to long-accepted values. The goals of secularism, socialism, democracy and professional ethics are coming under increasing strain." The policy, however, reaffirmed the principle of 'equalisation of educational opportunities'. Note that 'equality' has been rephrased as 'equity'. Later, 'inclusion' has gained focus in policy documents. Needless to say, 'inclusion' is *sine qua non* in the notion of equality. But inclusion is not equality. It may be a starting point; but does not necessarily mean that the inclusive policy moves in the direction of equality. Therefore, it is worth examining to what extent the present inclusive policy has potentiality of moving towards equality under neo-liberal economy?

The policy focused on the social groups—women, SCs, STs, religious minorities and other socially-educationally backward groups and physically handicapped—who have been traditionally so far denied access to education. The policy specifically mentioned that 'the new thrust in elementary education will emphasize three aspects. They are: (i) universal access and enrolment, (ii) universal retention of children up to fourteen years of age (iii) a substantial improvement in the quality of education to enable all children to achieve essential levels of learning . . . It shall be ensured that free and compulsory education of satisfactory quality is provided to all children up to fourteen years of age before we enter the twenty-first century'. To meet this objective, the policy promised to take effective measures in the direction for the Common School System as recommended in the 1968 policy statement.

But there was no legal provision whereby the State could be forced to provide education of 'satisfactory quality' to all children. Following the Supreme Court's judgements which interpreted that Article 45 flows from the right to life guaranteed under Article 21A, a section of civil society focussed its campaign on Right to Education as on fundamental right. The civil society built a pressure on political leaders for the amendment of the Constitution to give education a legal status as a fundamental right. After sustained campaign, occasional localized mobilization of the people in the streets in the form of processions and rallies, and media coverage, the political parties took the issue on their agenda. The Constitutional Amendment Bill for the inclusion of education as a fundamental right was moved in the Parliament. A major section of civil society involved in the campaign was not happy with several provisions in the Bill.⁵ The Bill was passed in 2002 as the Eighty-sixth Amendment Act. Subsequently, the Bill with specific provisions was placed before the Parliament in 2005. The struggle continued.

At last, the Right of Children to Free and Compulsory Education Act (RTE) was passed by the Parliament on 4 August 2009. It spells out the modalities of the provision of free and compulsory education for children between six and fourteen years of age. The law came into

⁵ The said amendment proposed that Article 21A (fundamental right to free and compulsory education for children in the age group of six to fourteen years) be introduced while former article 45 (the then existing Directive Principle on FCE) be deleted and Article 51A(k) (fundamental duty on parents) be introduced. In November 2001 the Bill was re-numbered as the Ninety-third Bill and the Eighty-third Bill was withdrawn. The Ninety-third Bill proposed that former Article 45 be amended to provide for early childhood care and education instead of being deleted altogether.

effect in the whole of India, except the state of Jammu and Kashmir. On that occasion, the Prime Minister, Dr. Manmohan Singh declared with usual rhetoric in the Parliament, “We are committed to ensuring that all children, irrespective of gender and social category, have access to education; an education that enables them to acquire the skills, knowledge, values and attitudes necessary to become responsible and active citizens of India.” The Bill became an Act in 2010. Accordingly, “Every child of six to fourteen years shall have the right to have free and compulsory education in neighbourhood school till the completion of elementary education and no child shall be liable to pay fees or charges or expenses which may prevent him or her from pursuing and completing elementary education. The Act also makes a provision that all private schools have to admit 25 per cent of the total students from poor and disadvantaged communities⁶.

A section of civil society engaged in the long-drawn campaign welcomed the Act with enthusiasm. They are now engaged in building pressure on the government for its effective implementation. Except a handful number of schools in couple of federal states, no private school has followed the directive. Under the present political economy, this fundamental right will remain on paper. However, another segment of civil society is unhappy with the Act as it depends on the private school to enrol poor children. They demand for common schooling system as recommended by the Education Commission in 1968 and reiterated in the 1986 as well as 1992 policies. Their campaign for the common school continues⁷.

Simultaneously, since the early twentieth century leaders of various segments of society have been engaged in both mobilizing their followers to acquire education as well as building pressure on the state for expansion of educational facilities for the group members. Most active among them are Dalits. The Dalit movement led by Ambedkarites as well as Gandhians have repeatedly called for expansion of educational opportunities for the deprived communities. Similarly, earlier generation of feminist social reformers had been in forefront in expansion and reform of quality of education. Thanks to their lobbying, the government had set up the National Committee on Women’s Education, headed by Durgabai Deshmukh in 1959. It emphasized the need to recognize women’s education as a major concern in education. Women activists raised issue on the contents and curriculum that reinforce bias against gender and legitimised differential roles between the two sexes. The government then appointed a committee under Chairpersonship of Hansa Mehta in 1961. It argued that the responsibility for the existing gap between the education of boys and girls lay in the continuation of traditional attitudes and values which regarded girls as inferior to boys in physique, intellect and aptitude, and the perpetuation of such ideas through the existing practice of prescribing subjects for girls that reinforced the traditional division of tasks and roles between two sexes. Their views for equalisation prescribed in education are

⁶ See August 8, 2006. ‘Private Schools in India Wriggle Out of 25% Seats for the Poor’, *The Economic Times*, Singh, S. October 22, 2006. ‘Right to Education Only on Paper’, *The Statesman*, See also, Seethalakshmi, S. and M Seshagiri. August 8, 2006. ‘Private Schools Have the Last Laugh’, *The Times of India*, available at <http://timesofindia.indiatimes.com/articleshow/1874504.cms>

⁷ See Sadgopal, A. December 22, 2001–January 04, 2002. ‘A Convenient Consensus’, *The Frontline*, 18(26): Rajalakshmi, T K. December 08–21, 2001. ‘A Regressive Bill’, *The Frontline*, 18(26): See also, similar campaigns and protests that have been documented in ‘Campaign for the Right to Education’, National Centre for Advocacy Studies, Advocacy Update, No. 17, July – September 2002, available at http://www.doccentre.net/eldoc/n00/_campaign_right_education.pdf.

reflected in the Kothari Commission too. Report prepared by women activists on 'The Status of Women in India' in 1974 underlined the role of education as an agent of empowering women. It noted wide gaps between the enrolments of girls and boys at all levels of education. It recommended sustained campaigns by all, preferably women-officials and non-officials, social and political workers, to bring every child into school in class I preferably at the age of six years; free education for all girls up to the end of the secondary stage; and equality of sexes as a major value to be inculcated through the educational process. Following these pressures, the NEP 1986 calls for 'interventionist role' of the state in empowering women and traditionally deprived communities and follow the policy of non-discrimination (Desai and Thakkar, 2001). However, it needs to be mentioned that education has not been on agenda of non-Gandhian contemporary tribal movement. Cultural/regional autonomy, forest and land rights are its primary focus.

Spread of Education

Over the last three decades literacy rate has increased in many countries of the world—irrespective of the political system—democratic or authoritarian. India's literacy growth rate from 18.33 per cent in 1951 to 74 per cent in 2011 is not exceptional. In fact it is slow. It occupies 137th position among the 183 countries of the world⁸. According to the 2011 Census, 82.12 per cent males and 65.46 per cent women are literate in India. During the last decade the rate of literacy among females has certainly increased, and also at a faster rate than that of males. The percentage rise among females is 11.79 per cent and of males is 6.88 per cent. The gap between the two has narrowed in the last four decades. Similar pattern in the growth of literacy among Scheduled Castes (SCs) and Scheduled Tribes (STs) is found, though tribals lag far behind than the rest of the population. The rate of literacy among the SCs increased from 10.3 per cent in 1961 to 54.7 per cent in 2001⁹. In the case of STs, the growth is relatively slow from 8.5 per cent in 1961 to 47.1 per cent in 2001. If we exclude the STs of North-East where literacy is nearly above 90 per cent, thanks to different historical factors, rate of literacy among the STs of the rest of India would come down further.

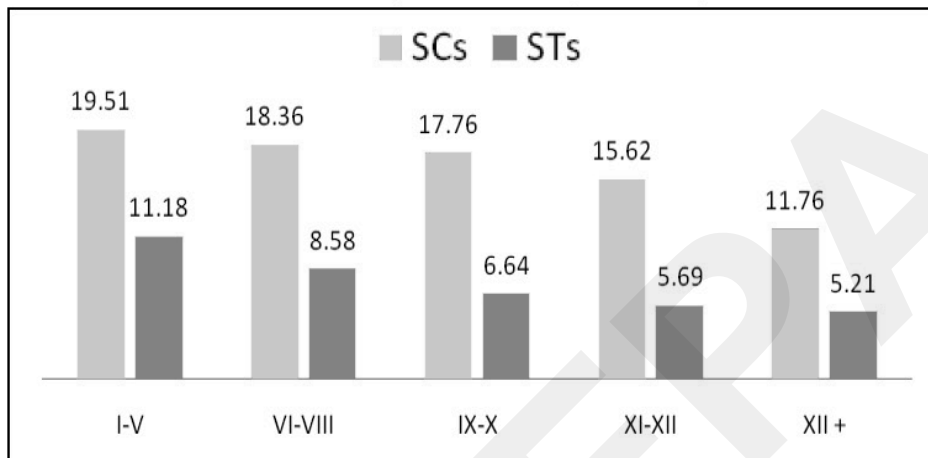
Enrolment in Educational Institutions

The figures about literacy cover all age groups and are confined to minimum ability (mainly reported to enumerators) to sign and read. Let us turn to institutional learning for children and young in the age group between seven and twenty-three years. Primary school is an entry point for a child in the educational system. The enrolment ratio of children at the primary school level (stand I to IV) has increased from 81.6 per cent in 2000–01 to 94 per cent of the non-SCs and STs. Among the SC and ST children, rate of enrolment has jumped from 21.2 per cent to 26.5 per cent and from 11 per cent to 15.2 per cent respectively. (Figure 1). It is significant that the growth rate among the general population (excluding SC and ST) is 12.4 per cent whereas that of the SCs is 5.3 per cent and the STs is 4.2 per cent. Growth pattern in higher education is the same. Proportion of girls over boys is low across communities (Vimala, 2009. Figure 2).

⁸ World Development Report

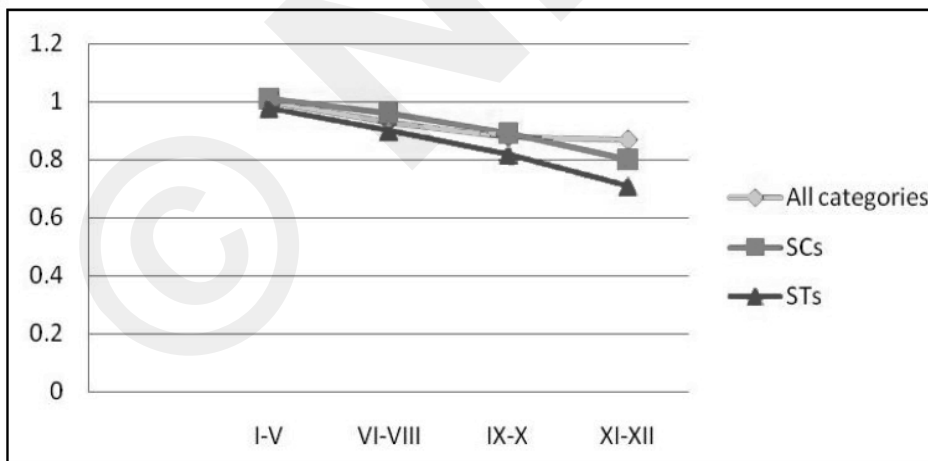
⁹ 2011 census figures are so far not available.

FIGURE 1
Percentage Representation of SCs/STs in Education
(Classes I to XII+) (2009-2010)



Source: Ministry of Human Resource Development, 2012

FIGURE 2
Gender Parity Index in School Education
(Classes I to XII) (2009-10)



Source: MHRD,(2011), Statistics of School Education 2009-2010

Enrolment rate at the upper primary and secondary level has also considerably increased over a period of time. But the rate of growth in the upper primary is lower than that at the primary level. This cuts across the social groups and gender. It, however, picks up at the secondary level. On the whole, the growth is slower among the SCs and STs than non-SCs/STs. It is also much more at the secondary level. Among the SCs and STs the growth rate

is 4.4 per cent and only 1.5 per cent respectively as against 14.2 per cent among the non-SCs/STs. Enrolment of girls in general and of SC and ST has also increased both at primary and upper primary level. This data indicate two things. One, as a level increases, number of takers (students) declines. All those who get enrolled in the VI standard do not necessarily complete the VIII standard. The same is the case with those who pass standard VIII. Second, this pattern applies to all social groups and gender. But the proportion of getting left out to climb up is higher among SC, ST and women. It is alarmingly high among the ST than SC. It is important to note that if a SC student somehow crosses the upper primary, s/he has greater possibility to maintain somewhat similar speed as that of the non-SC/ST. Note the same trend in higher education. In the case of STs, their enrolment is slower at the secondary level, but they pick up speed in the higher education; though they are behind SC, not to speak of non-SC/ST. Once the girls overcome initial barriers of the primary classes, relatively a larger number of them continue their studies till Class X.

Similarly, enrolment in higher education (above secondary) has also increased considerably. In 1983 the number of students in higher education was 58.9 lakh. It reached 111.0 lakh in 2000 and 169.7 lakh in 2011–12. The ratio of SC and ST students has also increased correspondingly. The proportion of SC and ST students increased from 10 per cent and 3 per cent in 2001 to 12.5 per cent and 3.5 per cent respectively in 2005–06. The growth rate of the ST students in higher education is very sluggish. The ratio of girl students has increased from 35 per cent in 2001 to 41 per cent in 2011–12. Majority of the students (56 per cent) got enrolled in arts—humanities and social sciences—and science faculties. More often than not they join these courses because they do not get admission in other courses of their choice. It is ironical that these courses are not in demand in market, yet a very large number of students get enrolled for these courses. Proportion of girls, SCs and STs is higher in these courses. Reasons for such mismatch and consequences on their life chances need a separate study. My own hunch is that they pursue these courses because they do not have immediate opportunity for employment of their choice and hope that something 'better' would be available after college education.

Drop-out/Push-out

As seen above, exclusion from educational institutions increases as the stage changes from low to high. As also noted, enrolment does not necessarily mean that students attend classes regularly. Several micro-studies show a gap between enrolment on record and actual presence in classroom particularly at the primary stage. Even among those who attend classes for relatively many days do not complete the respective stage of education. Thanks to various campaigns like Sarva Shiksha Abhiyan, launched in 2001, drop-out rate in the last decade has considerably declined. At the same time the rate from class I to V is fluctuating. In 2005–06 drop-out rate was 25.67 per cent. It declined to 24.33 per cent in 2008–09 and increased to 28.86 per cent in 2009–10 at the primary level. According to official data, the rate of drop-out has increased in the last five years, particularly among the girls. However, the rate of SCs and STs has declined; but not of non-SCs/STs. This is surprising. At present I would not like to speculate the possible reasons for such a gap but would only suggest that this requires micro-level investigation (Table 1).

TABLE 1
Drop-out Rate in Different Stages of School Education (2009–10)

Social Group	Primary (I-V)			Elementary (I-VIII)			Secondary (I-X)		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
SC	32.67	25.31	29.33	50.59	51.99	51.25	58.47	59.71	59.03
ST	35.19	33.72	34.5	55.15	60.64	57.78	74.71	75.85	75.21
Total	30.25	27.25	28.86	40.59	44.39	42.39	53.38	51.97	52.76

Source: MHRD, Annual Report, 2011–12.

Democratisation coupled with increased literacy and mass communication has inculcated at least normative desire among all parents, irrespective of their social status, to send their children, particularly boys to school. They believe that education would improve their life chances. Yet, a large number of children, four per cent in the age group between six and 11 years still continue to remain out of school. Highest among them are Muslims; followed by SC and ST. Proportion of girls is also higher in all social groups. Besides, the non-enrolled in the school register, very large number of students as seen above dropout from schools at a very early stage of schooling. The main reason for such a scenario is chronic poverty of households. Poor are haunted with constant insecurity because of low wages, irregularity of availability of work and seasonal and/or daily migration in search of livelihood. Children of such families are forced either to look after the siblings when the parents go for work and/or assist parents in economic activities to get a square meal. The situation in urban areas is not much different with increasing informalisation of labour. In their every day struggle for survival, notwithstanding their aspirations for better future of their children, “it is only natural for poor households to have short-term view of life, where immediate gains or comfort are valued more. The schooling of children demands continuous care and long-term commitment which is a difficult proposition for households living in continued insecurity and uncertainty” (Jha and Jhingran, 2005: 291). Orphan children face the worst condition. Except a few ‘lucky’ who get some institutional support, they have no other alternative but to sell labour to mitigate hunger.

Besides poverty, experience of humiliation—discriminating treatment in the institutions—keep some children away from school. The children of SC, de-notified and nomadic tribes, tribes in predominantly non-tribal areas, some OBCs and Muslims are the victims. At the tender age they are hurt by teachers and fellow students. Nearly in one-fifth schools in rural areas Dalit children are not allowed to sit with non-Dalits. In mid-day meals separate lines are observed. They do not get drinking water along with other students in several schools. Moreover, Dalit students are compelled to carry out certain work like cleaning toilets, sweeping floor, etc. About 15 per cent teachers treat Dalit students as ‘untouchables’, do not pay equal attention to their studies and occasionally use derogatory language for them (Shah et al., 2006). Though this is a cognizable offence, the teachers and institutions get scot-free, unless some activists protest. Besides discriminatory practices, location of school, regularity of teachers, pedagogy, curriculum, etc., also contribute in drop-out process. Despite several legal provisions such as fundamental right for life, free and compulsory education upto the age of fourteen and ban on child labour under various laws (Articles 24, 21 A and 45), an estimated more than 15 million children work for their

livelihood. This is out of compulsion than a choice. Thus, under neo-liberal economy, the number of child labourers has increased and not declined.

Moreover, monthly per capita household expenditure for primary education in the last decade has sharply increased for all students. Even in government schools the parents have to spend some amount for sending a child to school. According to a survey in 2003, per student family expenditure in government school was Rs. 170.50 per annum (Jha and Jhingran, 94). This is relatively a high amount for a family whose annual income was below Rs. 3000 per month. Out-of-pocket expenditure of the poor households who somehow send their children either to public or private schools has been doubled in the last decade (Tilak, 2009).

Expenditure for education increases as a student moves from one stage to another. This expenditure depends upon the type of school—government or private—as well as the distance of school from place of residence. According to a financial advisor, a couple (presumably urban resident) with an aspiration to provide ‘good’ education to their child, assuming in private school/college, has to make provision for nearly eighty thousand rupees for primary school and above four lakh rupees for professional education per year for their son or daughter (Table 2).

TABLE 2
Facing Expenditure on Education per Child (Rs.)

Age (Years)	Child Care/ General Expenses Annual	Educational Stage	School Fees Per Month (A)	School Bus Charges (B)	Tuition Fees (C)	Amount Spent on Extra Curricular Activities (D)	Cost of Education (A+B+C+D) Annual	Total Expenses on Child Rupees
2	60,000	Play school	2000	1000	-	-	36,000	96,000
3	60,000	Nursery	3000	1000	-	-	48,000	1,08,000
4	24,000	Kindergarten	3000	1000	-	-	48,000	72,000
6	24,000	Grade 1	3000	1000	-	1,000	60,000	84,000
10	24,000	Grade 5	3000	1000	2,000	1,000	84,000	1,08,000
15	24,000	Grade 10	3000	1000	3,000	1,000	96,000	1,20,000
17	24,000	Grade 12	3000	1000	3,000	1,000	96,000	1,20,000
18	24,000	Professional	-	-	-	-	4,00,000	4,24,000
21	24,000	Professional	-	-	-	-	4,00,000	4,24,000

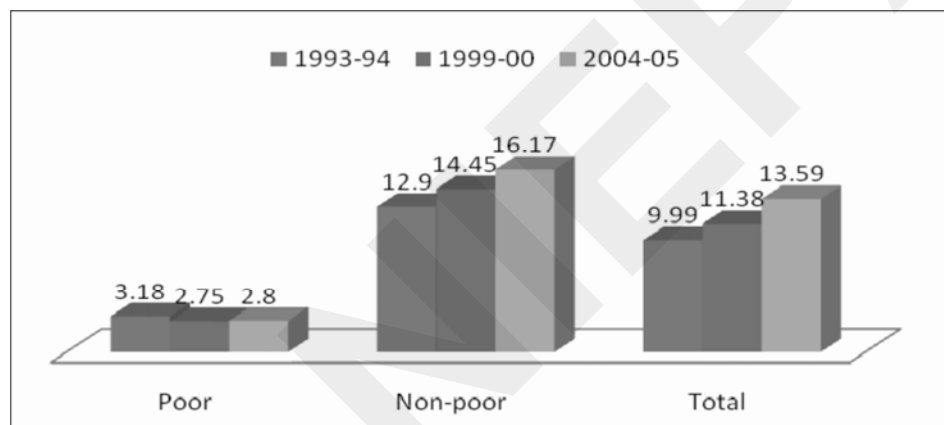
Note: The above is a hypothetical example. Maternity and Childcare cost could add upto say Rs. 65,000. The above figures are estimates and the actual expenses could vary as per the couple and their aspirations for a child.

Source: Calculation courtesy/The Tipping Point, Quoted by Preeti Kulkarani, ‘Investment in Your Child’s Future, the Secure way’, *The Economic Times (Delhi)*, 11 November 2011.

Though this is a hypothetical example, it is not far from reality. If one goes by this, it can be said that less than one-fifth of the country’s households can afford such expenses from their regular income. This is the reason why a large proportion of students terminate studies from middle schools and compromise with schools with less quality education. Students from vulnerable sources of income are the victims. They are forced ‘to join workforce to supplement their household income’ (Dubey, 2009: 151). This is true for all social groups, depending upon the size of vulnerable strata. Very large sections of SC and ST are poor—

agricultural labourers, small and marginal peasants, casual workers and self-employed daily earners—hence, a vast majority of students from these groups leaves studies at an early stage as compared to upper castes. ‘Of all literate SCs, only 16.3 per cent attained education up to middle or upper primary classes and another 15 per cent received education till secondary and higher secondary levels. Only 3.1 per cent were fortunate enough to graduate from college. On the other hand, over 22 per cent among the non-scheduled communities could attain high school education and another 7.64 per cent had graduate and post-graduate degrees’ (Sinha and Srivastava, 2009: 123–24).” In fact, gap between the students from poor and non-poor households has increased in the last decade (Figure 3).

FIGURE 3
Gross Enrolment Ratio in Post-higher Secondary Education,
by Economic Strata



Source: Dubey (2009)

Types of Schools

Nearly six per cent of the rural children, at the age of six do not have a school within one km walking distance from their home. Out of 10,30,996 recognised schools, 93.78 per cent schools have *pucca* or partly *pucca* buildings, 3.78 per cent have *kutchcha* structure and 2.46 per cent run in tents or in open space. Moreover, infrastructure facilities—buildings, drinking water, blackboards, classrooms—are not evenly available in all schools. According to a survey, one-fourth of the teachers in primary schools do not regularly attend schools (World Bank, 2004). In rural areas, 60 to 70 per cent children belonging to different classes sit in one dilapidated room and are being taught various subjects simultaneously by a single teacher (Shiv Kumar, 2003). According to the Seventh All India Education Survey (AIES) 2008, of all the schools 63 per cent are primary, 24 per cent upper primary, nine per cent secondary and only four per cent are higher secondary. As majority of the population—three-fourth—live in rural areas, 83 per cent of the schools are located there. Of the total recognised schools, the largest number of schools, 71 per cent, are managed by the government (including local government). About eight per cent schools are government

aided, run by private management (non-government organisation) and 13 per cent are complete private schools.

Aided schools are managed with a concept of public-private partnership. The government generally takes care of recurring and non-recurring expenses, and day-to-day management is the responsibility of a registered NGO—Public Trust or Society. With neo-liberal economic policy, the ratio of government and government-aided schools is on the declining scale both in urban and rural areas. The process began in the late 1980s. Most of the state governments have increasingly neglected management of the government as well as grant-in-aided schools. By the mid 1990s several states stopped recruitment of teachers in primary schools. Not only new teaching posts with increased number of students are not created but even the vacant positions due to retirement or resignations are not filled. According to the Ministry of Human Resource Development's calculation in 2012 there is a vacancy of 12.59 lakh teachers in government primary and upper primary schools. The number varies from 3.12 lakh in Uttar Pradesh to 3013 in Kerala. Student-teacher ratio at the primary level varies from 1 : 40 to 1 : 60. Number of schools in rural areas continue to run with one teacher. Absenteeism of teachers, particularly in tribal and remote areas is not unusual. During the last two decades the system of school inspection has been downhill mode. One of the reasons for this trend is the declining number of school inspectors. Vacant positions are not filled. Such a scenario pushes parents to opt for private schools.

Education is the federal state subject. Hence, the above mentioned scenario is of the schools managed by the state/local governments. Over a period of time, the central government, however, has created its own schooling system. In 1965 the Government of India launched a programme of 'central schools' to provide education initially to children of the Indian defence services. Later, the schools were renamed Kendriya Vidyalayas and were opened for all central government employees. These schools have co-education and follow uniform curriculum. They are affiliated to the Central Board of Secondary Education. They provide free education up to Class VIII and for girls upto Class XII. There are 1087 Kendriya Vidyalayas with 10.5 lakh students. They provide 15 per cent and 7.5 per cent reservations for SCs and STs respectively. In 1985, the government started Jawahar Navodaya Vidyalayas (JNVs) to provide 'free good quality modern education to talented children from class VI to XII, predominantly from the rural areas', irrespective of the socio-economic condition of their families. It is a residential school system for talented rural children. There are 595 JNVs, including 19 JNVs in districts which have large concentration of SC/ST population. Moreover, in 2005 the Government of India also started the Kasturba Gandhi Balika Vidyalayas. They are residential upper primary schools for girls. In these schools there are 75 per cent reservations for girls from SC, ST, OBC and Muslim communities, and 25 per cent reservations for girls from below poverty line families. No systematic study on functioning of these schools is available. Believably they provide relatively better quality education than the federal state/local bodies managed schools. They have better student-teacher ratio and infrastructure. Moreover, the students here are selected on the basis of their performance and talent.

The number of private schools is increasing. Majority of the private schools are located in urban areas. Their proportion increases from lower to higher stage. About 48 per cent of the private primary schools are in urban areas. Their proportion is as high as 66 per cent at the secondary level in cities. In other words, the private education entrepreneurs prefer to invest in higher education in urban areas. Their choice is obvious as they cater to those who

have the capacity to pay. Such clientele is largely found in urban areas; and they are those who could manage to climb up in the education ladder.

As private schools cater to needs and paying capacity of different classes of clientele, their structure and functioning have significant variations. A few individuals across the country live and constantly work with passion for innovative education pedagogy. They are full of new ideas. They experiment to develop the creativity of children through formal and informal education. For them education is the mission for their life. A few of them have started schools of their own or with financial support of philanthropists and/or business entrepreneurs. Most of these schools have necessary human and physical infrastructure. By and large teachers in these schools are well qualified and enjoy teaching. They are also well paid. The managements of these institutions encourage them to develop different pedagogies from time to time and even for different students. In these schools the student-teacher ratio varies from 1 : 7 to 1 : 30. On the whole, such ideal innovative schools cater for children of a very tiny section of the miniscule upper class. They are very expensive though one also comes across cases of passionate educationalists as well as religious missionaries engaged in teaching children from poor strata in rural and slum areas. However, they are few in number.

Besides these schools, a small number of schools are well equipped with spacious area, adequate infrastructure and well paid qualified teaching staff. Families from upper echelon afford to send their children to these schools. Their fees vary from Rs. 50,000 to Rs. 3,00,000–Rs. 4,00,000 per year. They are meant for the upper middle class and the rich. The rest of the private schools cater to the rising educational aspirations of lower middle and poor strata of society. Fees in these schools vary from Rs. 50 to Rs. 300 per month. Many of them do not have proper physical infrastructure and qualified teachers. More than 85 per cent of the private primary schools are unrecognised. They account for 38 per cent of all primary schools and 42 per cent of total enrolment (Ahluwalia, 2010). Quality of education in these schools is not better than the government (including grant-in-aided) schools. But there is an increasing tendency even among the poor to send their children to private schools as they perceive that they are better than the government schools. Right from the primary level children get divided in class-based educational institutions. The government schools, particularly where private schools are available, increasingly cater for the children belonging to deprived sections of society. The poor get poor quality education; hence, their chances to move up the educational ladder are severally restricted.

Scenario in higher education which serves around 16 per cent of the youths in the age group between 18 and 23 years is not different. According to the University Grants Commission (UGC), there are 560 universities and 33.02 thousand colleges. The growth rate of these higher education institutions in terms of number is phenomenal. During the last decade—2001 to 2011—the universities have increased twofold and colleges have increased nearly threefold. At present 18 Central universities, 14 Law universities, 16 Indian Institutes of Technology (IITs), 13 Indian Institutes of Management (IIMs) and few others have been established by the central government by Acts as ‘institutes of national importance’. Several states have also created a number of universities which focus on different areas like petroleum, defence, education and so on. One-third of the total colleges are fully or partly funded by the state governments and are eligible for support from UGC. The rest of the colleges/institutions are private called self-finance. A student educated in elite private schools has a far better chance of gaining admission to better higher education institutions

and better-paid employment than a student from government school. By far the largest number of applicants for admission to management schools, technology faculties, medical colleges, top institutions in various fields, administrative services, etc., has received their schooling in private elite institutions.

Government colleges/institutions do not offer 'free' education to all. They charge tuition and other fees; though it is nominal in comparison to private colleges. SCs, STs and girls in some states are exempted from the tuition fees. But in the last decade, many state universities and colleges have also started several kinds of 'self-financed' courses such as social work, business management, labour welfare, computer programming, etc., and take high fees like private colleges. Not only that; a few of them have also created a category of 'self-financed' students in regular programmes. The tuition fees in private colleges/institutions are exorbitant for an average middle class family. Fees vary across different courses depending upon the demand for that course. Fee for social work in Gujarat is Rs. 17,000 and for medicine it is above one lakh. Student-teacher ratio varies from 1 : 20 to 1 : 28 in some cases; and for other courses it varies from 1 : 60 to 1 : 150. State universities run with fifty per cent of the sanctioned teaching staff. The sanction number was determined in the 1980s. The situation in colleges for undergraduate classes is worse. And even the institutes created by the central government for 'excellence', 'world class' education, also do not have optimum number of teachers. Vacant positions in these institutions vary from 17 per cent in IIMs to 46 per cent in Institute of Information and Technology and Management and 40 per cent in the central universities. There is a conspicuous gap in infrastructure facilities between the central universities/institutions and most of the state managed universities. Conditions of very large number of colleges particularly in rural areas is worse.

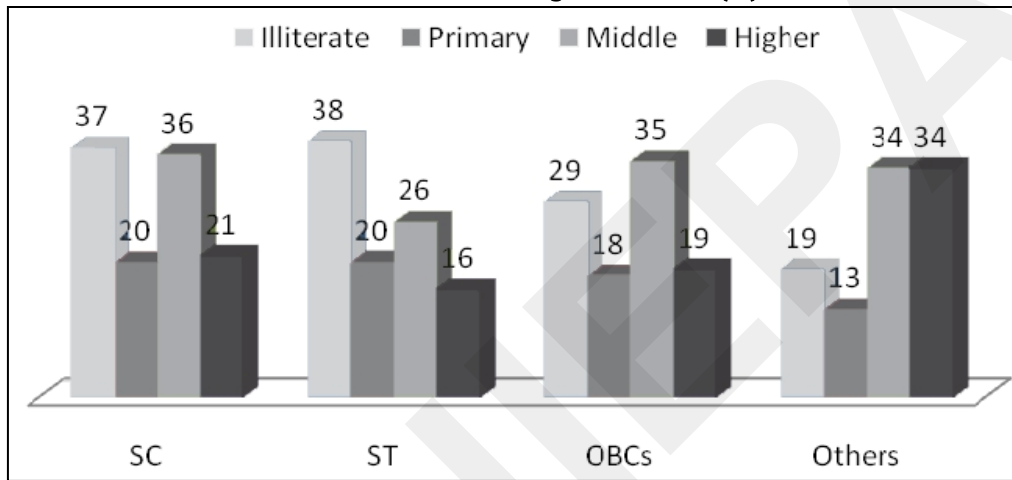
Educated Class

India's rich and middle class, besides wealth, hinges around higher education. It dominates society though it is relatively small (around 20 per cent) in size than the poor and less educated. More than sixty per cent of its members have upper and middle caste background. One-third of the higher educated adults of the upper castes belong to at least the second generation of higher educated families. In case of SC, ST and OBC the proportion of such families is around 20 per cent (Figure 4). The ratio of women among the educated across social groups is very low. The second generation of high educated persons/families are socio-culturally well entrenched in their class ethos.

All higher educated persons do not have more or less the same economic opportunities. Of them, only three out of ten, mainly males who could obtain a professional degree from the highly accredited institutions have better job prospects. The rest take up employment whatever is available for survival. Most of them are skilled and semi-skilled white collar employees in informal sector. Remuneration for a fresh MBA or BE varies from Rs. 7000 to Rs. 70,000 or more per month which again depends upon the institution attended. More often than not youths take up employment whatever comes to them and wait for better prospect. A person from middle class in general and of the traditionally deprived social strata in particular hardly affords to remain unemployed. Notwithstanding this, the rate of unemployment is higher among the post-graduates and graduates than those who have lower level of education. The rate of unemployment is very low among the illiterates, as they belong to poor economic condition and cannot afford to remain without work for a day. They

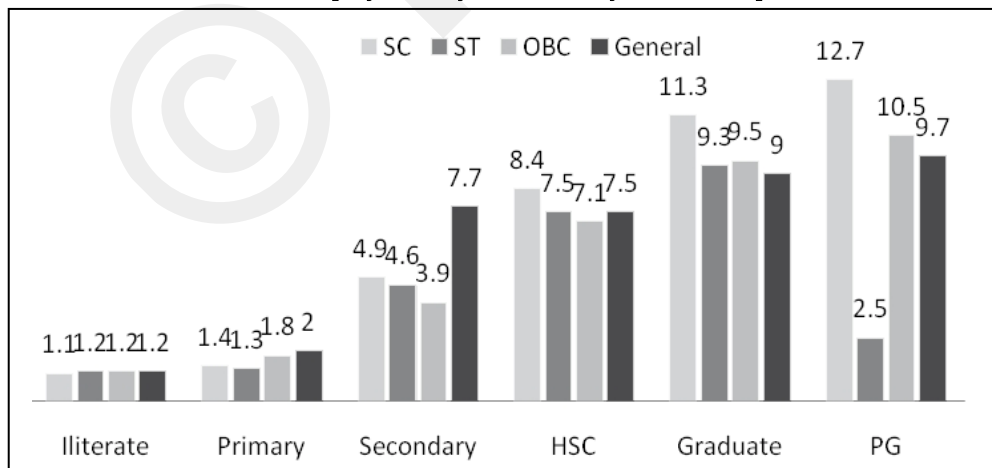
have to get engaged in whichever work is available including self-exploited self-employment. The rate of unemployment is higher among the higher educated SC and OBC. (Figure 5). Thus, few of them get parity in access to education; they continue to lag behind the dominant upper caste youths in job market. It may be noted that because of their status in family and dubious patriarchal notion of 'work', rate of unemployment of educated women is not available or reliable (Figure 5).

FIGURE 4
Father's Education of Higher Educated (%)



Source: National Election Study, Centre for the Study of Developing Societies, 2009.

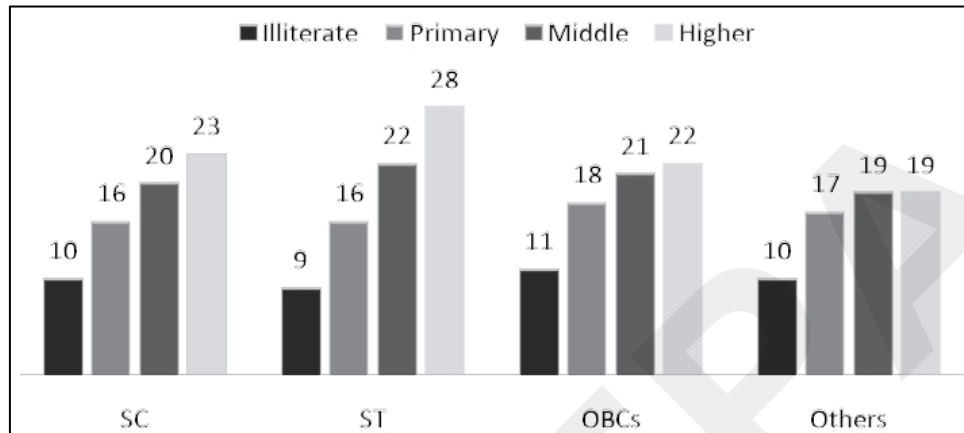
FIGURE 5
Rate of Employment by Education by Social Groups*



* The number of ST post-graduates is very low, so this number could be explained by sampling error.

Source: Labour Bureau, cited by Srinivasan, Times of India, Delhi July 18, 2012

FIGURE 6
Membership of Secular Organisations by Caste and Education (in %)



Source; NES, 2009.

Education has opened up avenues for expansion of one's horizon of interaction and activities beyond primordial as well as sectarian social network. It is expected that such circle becomes bigger with education. This is what is happening in India. Membership to secular organisations is found more as level of education increases. According to NES (CSDS), in 2009 there were 21 per cent higher educated as against less than 10 per cent illiterates who are members of the secular organisations¹⁰. One finds the same pattern across social groups. In fact, relatively a large proportion of educated persons from the deprived class than the upper castes are members of the secular organisations. (Figure 6). Their interest in politics and their political participation is also more than their counterpart upper and middle caste members. It suggests that they aspire not only to be a part of the mainstream modern life but also consider that they have a stake in secular democratic system. Moreover, on several political issues such as corruption, economic policy, foreign policy, etc., opinion of educated persons of the deprived and dominant communities matches with each other. But the question remains: Have higher educated of upper and traditionally non-upper castes integrated with each other to form a secular middle class? Education has so far not made impact on their mindset. This is evident in the anti-reservation agitations and ongoing tensions in public institutions and discourse. In the early 1960s' Srinivas observed, "This class may pay lip service to egalitarian ideals, but that should not blind us to the fact that its attitudes are fundamentally hierarchical" (1962:96). This is true but I do not agree that attitudes are *fundamentally* hierarchical. Such cultural explanations are fatalistic that nothing will change in India (Beteille 2002). The phenomenon has to be critically examined in the context of nature of education structure and contents as well as economic system that perpetuates dominant power relationship. 'Equality' is not a thrust of school text books (Bhog et. al. 2010). Instead competition and consumerism are encouraged. Hierarchy

¹⁰ This is a response of a question: 'Aside from caste and religious organisations, do you belong to any other organisations like co-operative, farmers' association, trade union, women's association, self-help group, welfare organisation, cultural and sports organization, etc.'

and inequality as the core value system of the caste system is not questioned. Instead to eulogize Indian civilization, the students are taught, "...the varna system as an ideal system of building the social and economic structure of a society cannot be overlooked" (Manjrekar et al. 2010:48 and 75-80).

Discussion

The Constitution of India and the first Education Commission envisaged developing a 'common' educational system so that all citizens can avail good quality education. Such system can provide opportunities to all students to develop their potentialities. Following this, after sixty-five years of independence, the State has granted education as the fundamental right to every child up to the age of fourteen years. But the possibility for its full realisation is remote under neo-liberal political economy. It is not on political agenda of any political party or the mainstream civil society actors. In fact, the policy makers by design or default have evolved the hierarchical and discriminatory institutional system that provides 'good quality' education to a selected few. Elimination process starts with non-enrolment and drop-out right at the primary stage. Among those who manage to complete the primary stage, some more get eliminated by the seventh and eighth standards. Of the remaining, a large number stop education with or without passing secondary education. A very small proportion by necessity or choice could get access to higher education. The institutions of higher education split them as per the demand of the market. Criteria for the segregation are aspirant's ability to pay and performance in terms of marks. A tiny segment gets success in getting admission in well established accredited institutions. Others are left to pursue studies whatever is available to get a degree with the hope to get some 'better' job. The proportion of students by social groups changes from primary to higher. At the primary and elementary levels proportion of the traditionally lower and economically poor is substantially larger than upper castes, thanks to their numerical strength in the country's population. But as the accelerator moves up from secondary level to higher education their place in the education system sinks.

In the last six decades education *inter alia* has reshuffled inequality. Coupled with democratisation, it has shaken roots of traditional ascribed inequality. Education has no longer remained forte of Hindu *Dwij* castes or handful nobles. Though the process began during the colonial period, its speed has accelerated in the last six decades. Small segment of traditionally lower social strata and women in different proportion has reached to high education echelon. A fewer of them against all odds have not only attained admission in the institutes of excellence but also successfully obtained degrees and professional positions. They have joined the rank of the elite. Along with them, some others—few with middle and many with higher education have moved to or aspire to get middle class status. They are professionals and/or other white-collar employees and/or self-employed entrepreneurs. Traditionally deprived social groups have now a place in the educated middle class. The class now has somewhat cosmopolitan composition. Such process of inclusion is a pre-requisite for society to move towards egalitarian social order. But it is not a sufficient condition. The question is: Are we struck to this with tokenism or are we moving in the direction for an egalitarian social order? Is it possible under neo-liberal economy to move further in that direction?

As of today, a place of the upward mobile educated belonging to traditionally deprived communities is not on equal footing. Their experiences of subtle discrimination—real or imaginary—in employment market, work place and social networking continue (Thorat and Newman 2010). Hegemony of the upper/middle castes, that not only constitute majority of the educated but also control economy and cultural reproduction, has been reinforced. Idioms change. For them caste system is irrelevant in modern India. They assert that their position has nothing to do with ascribed status. It is on the basis of their 'modern' education, 'rational' approach to life, achievement, ability and skill needed for success in competitive market. This mindset not only reinforces their position in power structure but also legitimises social Darwinism.

On the other hand, 'new' educated middle class of the deprived communities is increasingly getting alienated from their brethren. The gap between the two—not only in economic status coupled with lifestyle but also in cultural value system—is widening. Thus, inequality perpetuates and subsequently the questions arise: Do social status of a community improve with a few educated persons/families? Have the higher educated persons of these communities developed spirit and courage to struggle against injustice and discrimination that not only they but majority from their community members suffer and continue to live in wretched condition?

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The Indian Institute of Economics, FEDERATION HOUSE, 11-6-841, Red Hills
 Hyderabad-500 004.(India).Phone:(O) 23393512,Fax: 91-40-23395525.
 Email: info@iieasia.in, iieaer@yahoo.com, website:http://www.iieasia.in

The Great Expansion of Higher Education in BRIC Countries*

Martin Carnoy
Prashant Loyalka
Rafiq Dossani
Isak Froumin
Jandhyala B.G. Tilak#
Wang Rong

Abstract

Forty million. That is the number of young people who have graduated from universities and other four-or five-year higher education institutions in the BRICs (Brazil, Russia, India, China states) from 2005 to 2010, equal to the population of California, yet only a fraction of the number who will graduate in the decade of the 2010s. This is the result of the huge leap in college enrollment in the past 20 years outside the developed countries and particularly in the BRICs. An expansion of this magnitude changes the world's higher education landscape. Notably, the BRICs' great enrollment leap has included enormous numbers of students studying engineering, computer science and other technical subjects so important to the worldwide boom in new technology and the knowledge economy. The tens of millions of new graduates and especially the millions of new graduates in technical fields have the potential to change radically where production of high value products takes place in world markets. They also have the potential to impact developed countries' high-skilled labour markets, and could greatly increase the level of global basic and applied scientific innovation (Freeman, 2010).

This paper critically analyses the historical foundations of university systems in BRICs, how the higher education systems in these countries are being transformed by their enormous enrollment growth, the strategies BRICs are using to achieve that growth, and the varying role that the growth of technical higher education—specifically engineering and computer science—plays in that transformation. It is crucial to understand these changes if one has to assess the meaning and future impact they could have on global society.

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National University of Educational Planning and Administration, New Delhi-110016.
E-mail: jtilak@nuepa.org (Corresponding author)

Introduction

Growth in enrollment in higher education the BRICs that began in the mid-1990s is just the latest round of educational expansion worldwide in the 20th century, and, as in other countries, was shaped, in varying degrees, by the history of earlier, more limited growth in these higher education systems. Yet, at the same time, enrollment growth in the BRICs generally differs significantly from earlier expansions in the developed countries. The differences have the following characteristics:

- In all four BRICs, as their university systems began to incorporate many more students, they became *increasingly differentiated*, with an emphasis (although this, too, varied from country to country) on strengthening a limited number of elite institutions and incorporating the mass of new students into lower cost universities and colleges, increasingly diverse, with the expansion of non-university tertiary programmes and non-selective private institutions.
- The expansions have been—to a significant degree—*financed by tuition fees paid to public or private universities by students and their families*, in part made possible by the increasing economic value of higher education (especially certain fields of study) in an increasingly globalized economy.
- They also became *increasingly vocationalized* (less general university education and more professional education). Again, we contend that this is partly the result of the increasing value of professional education in globalizing markets.
- Except for China, which reinstated its “historical” university entrance examination at the end of the Cultural Revolution, they became *increasingly “legitimated and regulated” by entrance tests* at the state and national level, and, in the case of Brazil, even a national specific subject exit test for students graduating from each university department.
- This latest expansion was marked, at least in India and Brazil, by increasing concern for access to higher education by traditionally excluded students.¹

A Brief Look Back

In 1990, Brazil, India, and China together had about 8.5 million students studying in post-secondary institutions, whereas the United States, with about one-eighth their combined population, had 13 million higher education students. Put another way, in 1990, Brazil’s higher education enrollment as a percentage of its total population was the same as the USA had in 1935. India had the same level of college student enrollment in the population as the U.S. in 1920, and China’s post-secondary enrollment in the population was about one-third India’s—similar to Europe’s highly elite system in the 1930s (Table 1). Only 3-4% of China’s college age population attended universities and higher vocational institutions in the early 1990s.

¹ Carnoy et al (in press) develop these arguments in detail: the economic context, the financial strategies, the institutional features of the systems and how universities are reacting to these rapid changes, the changing composition of the student bodies, and the implications of State strategies and structural changes for higher education quality and equity.

TABLE 1
Higher Education Enrollment per 100,000 Population, Europe, Japan, United States, and BRIC Countries, 1920-2010
(Total Tertiary Level Students Enrolled/100,000 Population)

Country	Year																		
	1920	1925	1930	1935	1940	1945	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
France	125	145	197.5	185	190	308	334	446	595	1049	1581	1970	1998	2318	2995	3696	3444	3562	3525
Germany	198	144	196	113	72		256	350	499	632	830	1684	1987	2540	2810	2627	2499	2749	3179
Italy	136	112	112	144	259	418	310	288	356	583	1283	1749	1981	2075	2519	3125	3111	3439	3372
Sweden	155	151	165	194	174	209	241	312	500	885	1756	1985	2062	2200	2248	2966	3899	4744	4910
United Kingdom	134	124	135	136	92	137	242	239	382	579	1084	1308	1468	1824	2170	3316	3442	3813	3969
Japan	140	221	283	273	338	546	471	617	762	1110	1764	2017	2065	1944	2328	3124	3138	3160	3058
United States	564	742	895	1020	1132	1495	1508	1606	1983	2840	4148	5238	5311	5118	5591	5362	5449	5908	6673
Brazil	39	39	47	68	43	58	98	119	135	189	452	993	1162	1040	1074	1197	1638	2490	3421
USSR/Russia					430		770		1240		2040		2190		1900	1880	3240	4800	6599
India	19	26	26	31	40	54	73	113	150	217	692	746	515	581	585	608	916	1074	1731
China	na	na	na	na	na	29	25	48	138	89	6	54	117	168	186	256	596	1173	2344

Sources: Derived from population statistics and the following sources: B.R. Mitchell (1978). *International Historical Statistics: Europe*. New York: Palgrave; B.R. Mitchell (2003). *International Historical Statistics: Africa, Asia, and Oceania, 1750-2000*. New York: Palgrave. Table 12; B.R. Mitchell (2003) *International Historical Statistics: The Americas, 1750-2000*. New York: Palgrave, Table 12. NCES (2007). *Digest of Educational Statistics*. Washington, D.C.: NCES. USSR/Russia data are from Federal Service for Government Statistics: Russian Statistical Yearbook 2009 [http://www.gks.ru/free_doc/2008/b08_13/07-44.htm]. 2010 data are from UNESCO, Institute for Statistics, Data Centre.

[<http://stats.uis.unesco.org/unesco/tableviewer/document.aspx?ReportId=143>].

Notes: a) Total tertiary level includes university undergraduate and graduate students and non-university post-secondary students.

*UK data are for university only until 1950, then for total tertiary education (for example, in 1985, UK had only 429,000 university students, 34% of total tertiary students; **Stanislav Mercuriev. (1995). "Soviet" higher education in a changing political, social and economic context," estimates a much higher number; + approximate; a. until 1980, British India (includes Burma); b. India only beginning in 1985.

To put this “revolutionary” expansion in perspective, it is a revolution we have seen before—in the developed countries. Except for China’s fifteen-year leap from a very low level of (four-year) university enrollment to approximately 15% of the age group, even with the huge absolute increases in enrollment in the BRICs, the changes in enrollment *rates* are similar to those that took place in continental Europe, the United Kingdom, and Japan twenty years earlier, from 1965-1990, and in the United States from 1950-1970. Further, Russia’s higher education expansion in the 1990s was different from the other BRICs—it came from a much higher initial enrollment rate (comparable to Europe’s), but was similar to the other BRICs because of relatively slow growth in the 1970s and 1980s and the large increase in enrollment beginning in the mid-1990s.² That said, the changes in enrollment in these emerging economies are important *because* of the absolute numbers and because they signal a possible long-term shift of intellectual power away from the developed economies.

At the beginning of the last decade of the 20th century, three of the BRICs had universities that served only an elite few (as did Europe’s and Japan’s universities in 1965, and the United States’ in the 1940s). Their higher education systems had expanded over the previous decades (although negligibly in China, including a shutdown during the decade long 1966-76 Cultural Revolution). But as of the early 1980s, in Brazil, China, and India, they still retained the long tradition of serving children of professional and political elites to prepare them for government service, the liberal professions, and some for working in universities and research institutions. Greater access to primary and secondary school in China made universities more open to lower social strata youth than in Brazil or India. India did, however, begin affirmative action for lower castes beginning in the 1980s. Even so, in 2004-05, the gross enrollment ratio (GER) for those 18-23 year olds from the lowest 40 per cent of income families was only 2.4% compared to a 27.5% GER for those in the highest income quintile (UGC, 2011, Table 5.06). In Brazil and India, universities were also places of political activity, traditionally tolerated because of the higher social class of the students participating in such activity.³

Russia. The Soviet Union was the one exception to this educational elitism among the BRICs. The USSR greatly expanded its universities and particularly its post-secondary polytechnics in the 1920s and 1930s, so that by 1940, it had one of the highest proportions of youth attending post-secondary institutions, second only to the United States. This continued to be true after World War II, but enrollment growth slowed in the 1970s and 1980s. The most important feature of the USSR’s expansion, however, was that it became, after the United States and the often-touted German 19th century Humboldt University model, the first higher education system to *shift from a mission of European-style elite formation* (also the focus in Russia before 1917) *to one of universities serving economic development goals* and focusing on training cadres for the military-industrial complex. It also separated research from teaching, with research taking place almost entirely in Academies of Sciences, not universities.

² For Russia, this leap in enrollment was its third, after a higher education expansion during the Soviet industrialization of the 1930s and again in the late 1950s, when it expanded and modernized its manufacturing base.

³ Nevertheless, in Brazil, by the mid-1960s, with a wave of military governments in Latin America, political activity in universities was severely repressed. The children of the elite were not spared.

China. The Soviets passed this new mission and model to the Chinese in the 1950s, and these Soviet-styled institutions grew quickly. By 1960 enrollments had increased nearly six-fold to almost one million students (Li, 2010). Growth in enrollments persisted until the Cultural Revolution began in 1966, at which point many higher education institutions were closed and academics stagnated for the next ten years (Chang, 1974). China's market-oriented reforms of the late 1970s resurrected not only the economy but also awakened policymakers to the importance of higher education. Policymakers at that time recognized that a strong higher education system would produce much needed human capital for the economy, advance science and technology, and enable the country to compete in the global marketplace (Ngok, 2006). The earliest reforms included restoring the merit-based national college entrance examination that had existed before the Cultural Revolution, reestablishing academic course offerings, and gradually expanding enrollments.

The precursor of favouring an elite group universities was also put into place at this time: of 715 higher education institutions, 98 were "designated as keypoint (*zhongdian*) colleges, a 1950s policy resurrected by Deng XiaoPing, and whose role was to lead the way in raising the quality of higher education (Bastid, 1984, p.193). Further, the government implemented a policy of reducing the number of academic secondary schools and rapidly increasing the number of vocational schools. This was a conscious effort to reduce pressure on university expansion and to prepare a skilled work force for manufacturing expansion (Bastid, 1984; Rosen, 1985). Even as primary education was being universalized, a system of elite keypoint primary and secondary schools was also put in place to prepare an academic elite group of students (some for higher education). This favored children of professional and political elites, since these schools were only in urban county seats (Bastid, 1984, p. 194).

India. India and Brazil did not have Communist revolutions that overturned traditional elite higher education systems. Quite the opposite: they maintained their elite social class and restricted access to university systems until two decades ago. India's higher learning institutions go back around two thousand years, but modern universities were established in the 19th century by Western influences—in India, through almost two centuries of British occupation. The British introduced limited primary and secondary education and a small number of colleges to train Indian civil servants, engineers and other professionals needed to provide services in the colony. This British colonial legacy of restricting even primary and secondary education to a relatively few played out after independence in the highly elite university system (yet, also including affirmative action by the 1980s) and its tight link to the civil service (Carnoy, 1974). The colonial government created the federal university system, in which the lead institution—the university—was owned and operated by the provincial governments. It affiliated the institutions (colleges) that actually provided education, which were in private hands. Their goal was to provide a high quality education to elites for careers in the colonial administration. The state government prescribed policies which the universities implemented through setting standards, with no further involvement through strategy setting, funding or operational control.

Indian elites became the driving force in the later colonial period as the system evolved from a set of private colleges to the federal university system. It corresponds to the earliest typology in the literature of an elite system consisting of "elite institutions ... dominated by relatively small elite groups" (Trow, 1973, p.6).

The provincial governments began, during colonial times, to invest in relatively high quality higher education for a limited, elite student body. This was in support of national policy—that is, there was a congruence of objectives between the national and provincial governments. After independence, the provincial governments prioritized access over quality. They achieved this by promoting new public colleges, whose governance and the governance of the affiliating university, were tightly controlled by the provincial governments. The rapid growth and the politicization of governance negatively impacted quality.

The national government under Prime Minister Nehru, partly in response to the declining quality and partly for ideological reasons, established a few centres of excellence with generous funding support and foreign collaborations, particularly with the Soviet Union. The Indian government established a network of elite universities – the Indian Institutes of Technology and Indian Institutes of Management, for example—characterized by a highly competitive, meritocratic selection process. These institutions were closely linked with India's space and nuclear programmes and reflected the Soviet and the Chinese experience in developing engineering education. The quality of higher education, by the end of the Nehruvian era, was bimodal: a small clutch of well-funded, high quality professional institutions at the top managed by the Education Ministry in New Delhi and catering to the highest achieving high school graduates; and a mass of largely non-technical, poorer quality universities, run by the states, catering to a second tier of socio-economically elite students with lower levels of academic achievement.

Indira Gandhi attempted to improve quality by halting the expansion of the provincial universities. The rate of growth of higher education institutions fell from the 26 per cent rate under Nehru to 10 per cent under Gandhi. The states refocussed their mission on equity through what the central government believed were more relevant fields of instruction, such as agricultural programmes, vocational training and adult education. These changes, introduced within the existing central university governance model, failed to improve equity and quality. One reason for this failure was that the national government did not attempt to change the university's governance model, which continued to be led by provincial politicians, though with less power than before. A second reason was that even though the expansion of numbers of provincial universities slowed down, the number of colleges continued to grow and student enrollment increased. In effect, the central government had little control over what happened at the state level, except to insist on the expansion of more agricultural, engineering and technology colleges. Yet, given the governance structure in the hands of local politicians, the main incentive at the state level was for continued expansion, with little regard either for equity or quality.

A new set of governance reforms began in 1984 in response to these failures. The goal of equity was redefined: it changed from defining what could be taught, e.g., more agriculture-oriented programmes, to improving the access of underprivileged groups through affirmative action in access to all programmes and this shift occurred because of the increasing political power of “disadvantaged” castes and classes in the national and provincial governments. To control rising public costs, the establishment of independent private colleges was allowed.

Brazil. Brazil was also a colony until the early 19th century, and its colonizer, Portugal, was even less interested than the British in promoting local education, although a few non-Brazilians did study at universities in Portugal. Higher education institutions existed in

Brazil at the end of the 18th century, but Brazil's first university was formed in the middle of the 19th century, late by Latin American standards.

It was only with the Republic and the new Constitution, in 1889, that higher education could expand in a decentralized fashion, including Catholic, local, state level public, and private institutions. During this First Republic, a large number of new institutions came into being, all organized to train students for the liberal professions, and none as universities (Durham, 2005). When the Vargas regime ended the Republic in 1930, the Church dominated the small (33,000 students) higher education sector, with 44 per cent of total enrollment in Catholic institutions. As Daniel Levy writes, "Brazil's first private wave had arisen for much the same major reason operating elsewhere in Latin America—State toleration of a Catholic reaction to public secularism...In the Brazilian context, a certain demand-absorbing function might also be noted, given restricted public sector admissions" (Levy, 1986, p. 178).

The 1931 University Law and Legislation promulgated by Vargas was a compromise between the conservative forces of the Church and progressive secular intellectuals. It established the university as the preferred form of higher education institution but did not eliminate the autonomous professional schools and allowed for the continued role of private higher education. It also gave the State total control over regulating the system, including the private sector (Durham, 2005). It "reinforced the belief that the main role of higher education was to provide training and certification for the established professions" and the "principle that in granting degrees, higher education institutions acted on behalf of the state, extending legally binding professional credentials" (Balbachevsky and Schwartzman, 2011, p. 36).

This situation continued under the Second Republic (1945-1964) and the military takeover of 1964. The 1968 reform by the military government was driven by an idealistic goal of a "unitary higher education system, exclusively constituted by public, tuition-free, research-oriented universities" that came to dominate public policy thinking on higher education in Brazil (Balbachevsky and Schwartzman, 2011, p.37). The 1968 reform reorganized the public system along the U.S. model, replacing the old chair system with faculties organized by departments and full time contracts for faculty, and instituted a credit system for courses. There was considerable resistance to these reforms (in part because of resistance to the military government), but most of its elements were implemented by the early 1970s. Graduate programmes improved as well, and the Federal government's budget for universities grew enormously in the next decade, by more than 500 per cent in 1972-86.

The 1931 and 1968 university legislation established the bases for the relation between universities and the State until the late 1990s. Federal universities were controlled and regulated by a strong bureaucracy under the Ministry of Education, and the National Council of Education, appointed by the Minister, which was responsible for supervising national educational policies and all higher education institutions. "The most relevant regulatory bodies are still in place and have been enlarged by many other federal initiatives. The combined activities of all these bodies created a labyrinth of laws, decrees and regulations" (Balbachevsky and Schwartzman, 2011, p. 37).

One of the most interesting features of the State's close control of the higher education system is the role it designated for public institutions and their subsequently moderate growth in the face of explosive demand for increased university places from the 1960s onward. For example, from 1970 to 2000, there were only 39 new public universities formed

(16 of them in the decade of the 1990s) and no net growth in other types of public higher education institutions. In the same period, there were 70 new private universities created and an almost doubling of other types of private institutions, from 430 to 870. In addition, public universities were slow to set up evening courses, which lower the cost of attending in terms of income foregone (Durham, 2005). As Levy (1986) shows, in 1960, 44% of students were in private universities; in 1970, 50%; and by 1962, 60% (p. 180).

For different reasons, then, China, India and Brazil had delayed expansion of their higher education systems until very late in the 20th century; and had maintained restricted access largely to an elite few—even though in China and India, that elite few did include some youth from socially disadvantaged groups. In India and Brazil, the best explanation for the continued elitism of universities was the dual colonial legacies of relatively little education for the local population and the privileged position of elites well after independence. University education remained a right for those who had been able to take most advantage of colonization or, in the case of Brazil, immigrants who had already been relatively well off in Europe. This “Right” to free higher education was increasingly legitimized by entrance examinations in which mainly the privileged were likely to succeed, since they were able to attend elite public and private secondary schools.

Differentiation, Rationalization, and Vocationalization

Despite these legacies, all three countries greatly expanded their post-secondary enrollment after 1990 and began the transformation of their higher education systems. To varying degrees, the relative number of universities catering to youth from elite families is declining; and the relative number catering to students from middle and some working class families is rapidly increasing. Higher education systems geared to elite formation are gradually turning into mass systems like those in today’s United States, Japan, many European countries, and Russia.

Burton Clark (1983) named this strategy “differentiation” and celebrated it as a way to open the university system to many more high school graduates. Rather than just increasing enrollment at elite universities and therefore depreciating the value of higher education for those who attend such institutions, differentiation expands second and third tier institutions to absorb the mass of new entrants. Clark’s reference point was the state of California’s massified and diverse higher education complex: a number of private universities (some elite) and its three tiers of public institutions including the University of California (in 2009, about 220,000 students in 10 universities, some relatively elite), the widely accessible State College system, now the State University system, of 23 campuses and 430,000 students, and the “open” Community College system of two-year institutions enrolling about 1.5 million students. Clark rightly viewed California’s system as highly democratized and serving a broad spectrum of youth seeking post-secondary education.

Even the widening of opportunities through higher education expansion can potentially result in greater inequality if students from advantaged backgrounds disproportionately enjoy new or better quality educational opportunities in higher tier (more selective institutions) as the system expands to absorb more students from lower social class groups (Shavit et al., 2007; Ayalon and Shavit, 2004; Hannum and Buchmann, 2003). Raftery and Hout (1993) claim that inequality between different social strata continues until advantaged groups are saturated in a particular level of education, and after which time disadvantaged

groups begin to gain more access to that level. Lucas (2001), too, claims that advantaged groups constantly find or create new educational opportunities through which to maintain their higher status, thus preventing disadvantaged groups from being on an equal footing.

Given the probability that higher educational expansion does not result in “equal access” because of educational differentiation, in order for it to “work” in democratic (and even in most non-democratic) societies, the allocation mechanism of students to each level in the differentiated structure cannot be *overtly* based on social class, wealth, political position, or other forms of parents’ elite status. The stake in mass organizing differentiated systems is political legitimacy, and for the past 70 years, legitimacy has increasingly hinged on the appearance of objectivity in judging access to higher education institutions.

In *The Big Test* (1999), Nicholas Lemann showed how the Scholastic Aptitude Test was the brainchild of Henry Chauncey, Harvard’s assistant dean of students in the 1930s, who wanted to broaden Harvard’s recruitment beyond the exclusively elite, preparatory school educated student body of the time. The test was intended as an “objective” criterion acceptable even to the privileged Harvard alumni) to select the brightest student regardless of birth status. Supported by Harvard’s president James Conant, Chauncey was a product of his time, influenced by the class-conflict politics of the depression era. He and Conant believed that in a democratic society the best and the brightest minds should be the “new elite,” replenishing the previous generations’ best and brightest without regard to their families’ social or economic status. Elite universities would still be elite, but the meaning of the term would change. Such institutions would be developers of highly skilled professionals who would lead from their intelligence rather than their social class. Scientific thought, not internalized ideologies or socio-political tradition, would be the basis of elite formation. From its beginnings as a recruitment tool at Harvard, the SAT became ingrained in American academic culture as a sorter for different levels of the higher education system. And as university systems expanded elsewhere, testing specifically for the purpose of differentiating the types of universities students could enter, eventually spread to the rest of the world.⁴

As Lemann makes clear, testing as an antidote to social class reproduction only worked marginally. Even with testing, U.S. elite universities ended up with largely high social class-based student bodies. Today, they are more diverse than in the 1930s, but universities such as Harvard and Princeton still get an inordinately high fraction of their students from private preparatory schools, essentially recruiting from the privileged groups who attended Harvard and Princeton in the past. Further, as should have been obvious to the reformers, those with more family resources would end up with higher test scores, either by attending high schools that prepared them for the test or by paying for test training. This is precisely what happens in other countries as well.

The more interesting legacy of the “best and brightest” movement of the 1930s is the reconceptualization of “elite formation” and the impact that it has had on the definition of university excellence. Testing students was part of a broader effort to extend the scientific basis of scholarly work to the way universities defined themselves, and, ultimately to converting all university education to the formation of different levels of professionals and to the scientific rationalization of the division of labor. The differentiation of higher

⁴ Of course, the Chinese used tests for centuries to determine access into the imperial civil service, and Napoleon introduced the French *baccalauréat* examination in 1808 as a requirement of secondary school graduation.

education not only fits into this rationalization at the highest levels of the labor market, it somewhat democratized elite universities and incorporated them into an overall hierarchy of educating a professional work force. They were at least partly transformed from a set of separate institutions specifically developing intellectual, political, and business leaders into part of a larger system of sorting students “scientifically” to optimize productivity for economic, social and political efficiency.

The Soviet Union found this the perfect model for its growing university system even before Chauncey and Conant tried to remake Harvard. Universities in the USSR were considered vocational/professional training institutions already in the 1920s, preparing higher-level labor for an emerging military/industrial power. The way to political power was through the Party, not elite higher education. But the way to economic efficiency in a command economy was through human capital planning. Young people were allocated to certain levels and types of differentiated higher education based on their revealed academic performance, and then allocated to jobs in the growing industrial economy. The focus on investing in higher-level human capital as a source of economic growth was an important feature of the Soviet system in the 1920s and 1930s (Carnoy and Samoff, 1989). This was consistent with Marxist ideology, which considered labor power the locus of creating economic value, and it contrasted to contemporary policies in the rest of Europe, which had expanded primary education in the late 19th century, but in the 1930s still considered secondary and higher education as more “academic”—the reserve of the socially privileged rather than a key to economic and social development.

In that regard, the new Communist government shared this developmentalist vision of secondary and post-secondary education with the capitalist, but less social class-bound United States. The American government had explicitly viewed secondary and higher education as a driver of economic development well before other countries. Thomas Jefferson introduced the notion of a regional public university as a driver of local development when he founded the University of Virginia at Charlottesville in 1820. Later, Land Grant Colleges were established in states under the Morrill Act beginning in 1862. The Universities of Iowa and Kansas were the first, although Michigan had already issued its own land grant prior to the federal act.

The Soviets added affirmative action (extra points on the test given for Party involvement, and working class or peasant parents) to provide a modicum of greater equality, consistent with Communist ideals. However, as in the United States, the children of the higher educated in the USSR had such a vast academic advantage that, aside from the premium awarded for Party activity, class-based affirmative action had a relatively small impact on access to preferred jobs. The Communist government also implemented spatial diversification away from the traditional intellectual centers (similar to the US model of land grant colleges), so that youth in the far-flung reaches of the USSR could attend universities and that those areas could develop economically. This was probably much more of a force for social equalization than affirmative action.

The other “new” feature of the Soviet higher educational system was the direct product of Leninist-Stalinist repression of critical thought and of the extreme vocationalization of education more generally in the drive toward industrialization and developing military technology. This was the emphasis on technical education, with university-level engineering, mathematics and the physical sciences as the top of the technical pyramid. Even today, long after the demise of the Soviet system, Russian higher education produces many more

undergraduate degree (mostly five-year degrees in the case of Russia) engineers than Europe or the United States and about one-third to one-half as many as India produces bachelors (four year) degrees. India has 10 times the population as the Russian Federation.

Western universities never reached the degree of vocationalization achieved in the Soviet system—in the West, universities have always retained some of their intellectual and critical thinking traditions, including those higher education institutions in the second and third tiers, such as the California State College and Community College systems. This was not the case in the USSR and the People’s Republic of China.

These country particulars are important because they shape the way higher education is expanding in the BRICs today. Nevertheless, the more general evolution of higher education in the United States and the USSR impacted the way higher education was shaped in the second half of the 20th century. Massification of higher education became closely identified with differentiation, and differentiation was identified with entrance testing and vocationalization, all the way up to the elite universities. This was the case in capitalist *and* communist economies. Thus, even elite formation became increasingly influenced by scientific rationalization and a focus on producing professional labor.⁵

This is precisely what occurred in Brazil, China and India in the 1990s as their university systems emerged from educating a narrow group of youth to “professionalizing” a much broader proportion of their young population. Universities became increasingly depoliticized—in the sense that their mission became much less the development of a political and scientific elite—and increasingly focused on teaching marketable skills more generally for higher-level jobs.

As time goes on, this mission redefinition developed in the 20th century through testing and vocationalizing the university curriculum (even in elite universities) is morphing into measuring university effectiveness based on achievement outcomes. Brazil has led the way in measuring how much students know at the end of their programmes of university study by testing final year students in hundreds of university departments beginning in the late 1990s. The test, called the *Provaõ*, was introduced during the Cardoso government in response to fears that many of the private universities were producing sub-standard graduates. A number of German states use a series of outcome criteria, not including tests, to allocate funding among universities; and Russia is considering doing the same. Most recently, the OECD board of governors has approved the development of final year tests for various fields of study in universities to be applied across countries in a form corresponding to the PISA test of secondary school students. This would allegedly allow international comparison of the quality of higher education and implicitly would allegedly measure how well universities in each country are fulfilling their scientific and economic development mission.

⁵ Three of the four countries have also expanded greatly their “vocational” or “professional” degree programmes, which require less than four years to complete. The number of China’s three-year vocational high education graduates has expanded enormously over the last several years. India produces very large numbers of engineer/technicians with “diploma” (three year) degrees. Russia has always had a large post-secondary vocational degree programme, but unlike the others, it appears to be in decline, as fewer students are interested in entering such programmes. Brazil, on the other hand, is considering expanding theirs.

<http://cshe.berkeley.edu/publications/publications.php?a=47>

The details on the expansion of the BRICs after the mid-1990s reflect many of the particularities of their Communist (Russia and China) and colonial (India and Brazil) legacies as well as the financial imperatives of rapidly increasing enrollments in relatively low-income countries.

China's Higher Education Boom

Chinese higher education has been transformed since the late 1990s. Only 4% of the 18-22 year old cohort or about 3 million (three and four-year degree) students attended post-secondary institutions in 1996, but this rose to 24% of the age cohort or about 27 million students by 2009 (Figure 1).⁶ As Figure 1 also shows, somewhat less than one-half of these students attend two-three year vocational higher education institutions. Thus, about 14 million students were in four-year institutions in 2009.

Rapid economic growth since China implemented market reforms in the late 1970s has supported the expansion in enrollments by enabling greater government investments in higher education. Large increases in per capita income also enabled the Chinese State to “tax” families wanting to invest in their children’s higher education through the introduction of college tuition fees in the late 1990s. An increasing number of families were both able and willing to pay these fees as economic reforms gradually increased the demand for higher educated labor and the returns to college.

Besides introducing general policies such as tuition or “cost-sharing”, the Chinese government has also carefully managed the nature of the growth of the higher education system. The Ministry of Education, in consultation with provincial governments and higher education institutions, fixed a “student enrollment plan” at the start of each year to determine the number of high school graduates from each province that can be admitted into each major of each university. Through the annual enrollment plans, policymakers have chosen to expand student quotas in various types of universities at different rates.

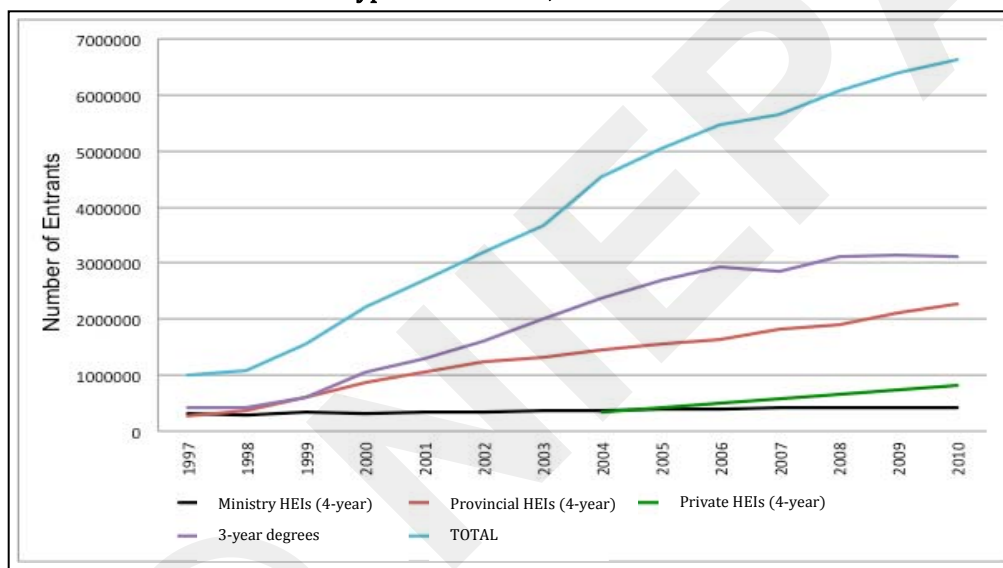
Many the top 100 universities had undergone mergers in the 1990s with institutions previously under the jurisdiction of various specialized central ministries. These were designated aspiring world-class institutions and have received special funding, through, for example, government policies such as the Projects 985 and 211. The State invested many more resources into these “elite” universities, but kept enrollment growth rates relatively low. Figure 1 shows how the enrollments in the elite universities were kept fairly constant over the decade of higher education expansion.

In contrast, the State allowed almost all the massive increase in enrollment to take place in universities under the jurisdiction of provincial education bureaus. These expanded the number of students by about six times from 1997 to 2009. This was a deliberate move on the part of the State to “separate” the function of developing a mass of university educated professional workers from the function of producing research-oriented and “elite” graduates in “leading edge” or “world class” universities. Even so, there are provincial universities that are also research-oriented, produce many Ph.Ds, and blur the distinctions, even though they do get less funding per student than the elite central universities.

⁶ This includes 5.4 million students earning undergraduate degrees in adult higher education institutions (including web-based undergraduates).

High-tuition private 4-year universities expanded at a notably slower pace from 1.01 million (total) students in 2004 to 2.19 million students in 2009 (NBS, 2005; 2010); this reflects the government's decision thus far to keep the proportion of private to public university enrollments rather low (about 20%). Finally, 3-year public and private vocational colleges also multiplied enrollments by about six times from 1997 to 2009. Thus, much of the increase in college attendance has been due to the expansion of post-secondary vocational institutions that now comprise about 45% of total higher education enrollments (NBS, 2010).

FIGURE 1
China: Number of Entrants into Higher Education Institutions by
Type of Institution, 1997-2010



Source: National Bureau of Statistics. 1998-2010. *China Educational Statistics Yearbook*. Beijing.

Notes: "Ministry HEIs" refers to four-year public universities under the central government. "Provincial HEIs" refers to four-year public universities under the jurisdiction of provincial governments. "Private HEIs" refer to four-year private institutions including "independent schools" (*duli xueyuan*). 1997-2003 data for Private HEIs are not available and also not included in "Total".

The rapid, controlled and differentiated expansion has enabled many more students to have the opportunity to go to college, but expanding non-elite institutions so quickly has also raised the potential for large inequalities within the higher education system itself (Shavit et al, 2007). Loyalka (2009) discusses how rigid education policies at different pre-tertiary schooling stages in China (including the college applications and admissions process) likely exacerbate unequal student sorting by socio-economic status across four-year institutions. For example, the annual enrollment plan mentioned above is set so that provinces with higher per capita incomes are allocated more spots in college and more selective colleges proportional to the size of their 18-year old age group (Loyalka, 2009). For example, Beijing, Shanghai, and Zhejiang (some of the most developed regions of China) send roughly 20-25%

of their 18-year olds to four-year universities, while Henan, Yunnan and Guizhou (some of the less developed regions of China) send roughly 8%.⁷

The underlying principles surrounding the allocation of college places to different provinces (including the criteria and formula used by policymakers) are not made publically available. It is not clear, for instance, to what degree the allocation is determined by financial considerations (i.e. provincial governments provide funding to institutions within their borders and thus demand higher college quotas for their own populations). It could also be that central policymakers feel pressured by local demand or believe in a social efficiency argument in which more developed provinces should be given greater access because they have proportionally more (well-trained) high school graduates. Even if these types of rationale exist, the basic inequality between provinces in attending colleges and more selective institutions has not escaped public notice. How policymakers will deal with inter-province college quota allocations will be a challenge as China continues to expand its university system over the next decade.

Perhaps the most visible instrument, however, for sorting students into and across the mass, differentiated higher education system in China is the college entrance examination. The examination or "*gaokao*", pronounced (gow-kow), has even gained international notoriety for influencing the entire education system in terms of what students learn before they get to college (LaFraniere, 2009). The examination has been criticized more for placing too much pressure on students and their parents as well as promoting rote-memorization to prepare for the test rather than more creative, dynamic skills and abilities.⁸ As a result, some elite universities are quietly urging the government to consider providing them greater room to use their own admissions criteria. It is not clear whether the government's recent experiment to give some universities limited autonomy to select a small proportion of students through their own application and admissions policies would increase or exacerbate equity across universities however. Furthermore, for the time being, decreasing inequality in higher education likely relies much more heavily on interventions at pre-tertiary education stages.

Another major feature of China's higher education enrollments is the high percentage of students studying various fields of engineering. While the percentage of engineers in 4-year institutions has declined somewhat from the 1990s, it still remained at 32% in 2009 (NBS, 2010). Researchers have rightly noted that in order to compare trends with developed countries such as the United States, we should count the total number of engineers graduating from 4-year institutions as well as comparable definitions of engineering majors (Gereffi et al., 2008). Yet, the over one million students entering engineering majors (albeit engineering with an unadjusted, broader definition) in 4-year institutions in 2009 is about nine times that of the United States (NBS, 2010; NSB, 2010). Moreover, the vast majority of freshman engineering students in China will not be able to change majors and will graduate

⁷ These statistics are estimated by dividing four-year university student enrollment data in 2009 (using individual-level national data) by the number of 9 year olds in each province in 2000 (using 2000 population Census data).

⁸ The recent (2009) performance of a sample of Shanghai students on the international PISA test, however, calls for a closer look at assumptions about the overall quality of learning in Chinese high schools.

with a degree after four years. In the US, undergraduate engineering students often change majors, drop out, or fail to graduate on time.

The high proportion of technical graduate also characterizes the graduate level, where, despite a gradual decline over the past 10 years, engineering MA students are more than 30% of total MA students and engineering Ph.D. students are more than 40% of total Ph.D. students. The number of Ph.Ds. awarded in engineering in China is about 15 thousand annually (NBS, 2010), more than in any other country worldwide, although Russia produces a higher number of engineering Ph.Ds. relative to its population. In 2008, India awarded only about 1,400 Ph.Ds. in engineering fields, Russia about 6,000, and Brazil, also only 1,200. Later in the study, we explore the important implications of this output of Ph.Ds. for technical education quality.

The differentiation between elite and mass universities was bound to have an impact at the organizational level of the two types of institutions, with administrators at many of the lower tier institutions mainly concerned with effectively mounting undergraduate programmes for increasing numbers of students and keeping costs low, whereas in the elite institutions, we observe administrators as being more concerned about improving quality, including hiring better qualified professors more likely to produce high quality research.

The future for expanding and improving higher education is laid out in China's "National Medium and Long-term Plan for Educational Reform and Development (2010-2020)" (hereafter known as "The 2020 Plan"). The 2020 Plan calls for increasing total college enrollments to 33 million by 2020 (about 45% are planned to be three-year vocational college enrollments), modestly increasing the private provision of higher education, and, overall, placing much greater emphasis on improving quality. Chinese policy makers are restricting access to universities through a secondary school policy that places almost half of secondary students in vocational high schools which mainly prepare students for the work place. Furthermore, China's population is rapidly aging (in contrast to India's and Brazil's), and the number of college age youth is declining rapidly, making it almost certain that the country's gross enrollment rate will reach the target of 40% of the age cohort (about 55% of those in four-year universities) by 2020. The great drop in college age population will relieve some of the pressure on the government in the coming years to continue expanding higher education and, in principle, will allow it to focus more on quality. Yet, this assumes that the mass of students channeled into vocational high schools will not demand access to higher education.

India's Provincial-Led Private Higher Education Expansion

More rapid economic growth beginning in the 1990s has contributed to India's higher education expansion, both in the number of institutions and the number of students enrolled (Tilak, 2008; Bhushan, Malhotra, and Gopalakrishnan, 2009). In 1985, there were less than 6 thousand colleges with about 4.5 million students; by 2009-10, there were more than 32 thousand colleges with 17 million students (of which about 14 million were undergraduates). The number of universities (including institutions deemed to be universities and institutions of national importance) trebled from about 200 to 600 (Ministry of Human Resource Development, 2011). In 2009-10, higher education in India employed approximately 700,000 teachers (MHRD, 2011). Although all this represents massive growth in India's higher education system, the proportion of the age cohort

attending higher education increased but remained relatively low, reaching about 15% in 2009-10.⁹ Even so, this gross enrollment rate varies greatly among states from above 45% in Delhi, 35% in Uttarakhand to below 10% in Assam, Jharkhand and Rajasthan (MHRD, 2011). This is partly related to the proportion of the population living in rural areas, since estimates in 2005-06 place the gross higher education enrollment ratio at about 7% in rural areas and 20% in urban (MHRD, 2010; Thorat, 2006).¹⁰

In 2010-11, almost three-fifths of total students, including undergraduates, post-graduates, and diploma level (short degree) students were enrolled in arts and sciences, about another 17% in business (commerce/management) courses, about 17% in engineering and technical education, and 4% in medicine (Table 2). If we restrict our measures to those enrolled in undergraduate degree programmes, the proportion of engineering and technical students was closer to 14-15%, higher than in Russia and Brazil, and, among the BRICs, only lower than in China.¹¹ As Table 2 shows, engineering/technology enrollment is rising far more rapidly than any other speciality—much more so than business—and the sheer number of those enrolled in and graduating from engineering institutions is also increasing at a high rate. In 2010-11 there were probably about two million undergraduate students enrolled in engineering institutions, about four times the number a decade earlier. In the mid-1990s, Indian engineering colleges were producing about 50 thousand four-year degree graduates annually. By 2006, this figure had risen to almost 250 thousand, and, based on enrollment figures from 2005, we have projected this number to be more than 400,000 graduates by 2010. Correspondingly, in fifteen years, from 1990 to 2005, the stock of first-degree graduate engineers in India more than doubled, from 500 thousand to 1.2 million. At current graduation rates, the figure today should be approaching more than 1.5 million. The number of engineering graduates per one million population is as high or higher than in many developed countries, but since only a fraction of these work as engineers, other measures of the number of engineers per million population in the mid-2000s shows India (214) as lower than China (340) and considerably lower than many countries, particularly Japan (765) and South Korea (1435) (Banerjee and Mulay, 2007).

⁹ As always, this is a complex calculation. We use the number of undergraduates as percentage of the 18-22 year old age group. Indian estimates (MHRD, 2010), for example, calculate the GER as 15 per cent as well, but those calculations are based on the total of undergraduates and postgraduates as a proportion of the 18-23 year-old population. The estimates for different states as shown below are based on this latter type of calculation.

¹⁰ Other statistics worth noting: the gross enrollment ratio for women is much lower than for men, 17% for men versus 13% for women in 2009-10. Only 11 % of scheduled caste young people are enrolled, and 10% of scheduled tribes.

¹¹ Of the 2.86 million students reported by the University Grants Committee (UGC, 2012) in engineering and technical colleges and universities in 2010-2011, about 250 thousand were reported as diploma level and post-graduate students, and of the 17 million total students in India, about 1.7 million were diploma and post-graduate students. Thus, undergraduate engineering and technical students represented about 16.5% of total students. A much higher fraction of students in engineering and technical colleges are diploma students than in other fields of study. However, other data reported by the MHRD (2011) show a much higher number of diploma students in engineering, so we think that the undergraduate enrollment in engineering /technical colleges reported by the UGC appears too high.

TABLE 2
India: Enrollment in Higher Education, by Field of Study, 1990-2010

<i>Faculty</i>	<i>Total Enrollment 1990-91</i>	<i>Percent</i>	<i>Total Enrollment 2001-02</i>	<i>Percent</i>	<i>Total Enrolment 2010-2011</i>	<i>Percent</i>
Arts	1,789,480	40.4	4,069,632	46.13	6,177,730	36.39
Science	869,119	19.6	1,754,110	19.88	3,127,042	18.42
Commerce/Management	969,882	21.9	1,575,940	17.87	2,904,752	17.11
Education	99,613	2.3	114,678	1.3	569,961	3.36
Engineering/Technology	216,837	4.9	605,597	6.87	2,862,439	16.86
Medicine	150,458	3.4	275,943	3.13	652,533	3.85
Agriculture	46,908	1.1	52,833	0.6	93,166	0.55
Veterinary Science	11,063	0.3	14,270	0.16	27,423	0.16
Law	234,538	5.3	280,449	3.18	327,146	1.93
Other	37,349	0.8	77,643	0.88	232,691	1.37
Total	4,425,247	100	8,821,095	100	16,974,883	100

Source: University Grants Commission. Various years. *Annual Reports*. New Delhi: UGC. Higher Education in India: Strategies and Schemes during Eleventh Plan Period (2007-2012) for Universities and Colleges. New Delhi: UGC.

Note: a. Enrollment includes "graduate" (undergraduate), post-graduate, and diploma level (short degrees).

One of the most important features of the enrollment growth pattern in recent years is the rapidly increasing number of new private colleges that rely almost exclusively on tuition. They are commonly known as unaided (no financial aid from the government) or self-financing colleges, offering accredited courses in engineering, management and medicine, as well as vocational courses preparing young people for work in the IT sector. According to the latest report of the Planning Commission (2012; Tilak 2011b), private higher education accounts for about four-fifths of enrolment in professional higher education and 60% overall. An estimate of 76% of annual student intake in engineering colleges was in private unaided institutions in 2006-07 (Banarjee and Muley, 2007, p. 69).

It is difficult to get precise information on more recent enrollment breakdown, but we have estimated that the percentage of private institutions, student approved intake in those institutions, and actual admission increased rapidly since 2006-2007, despite the recent doubling by the central government of the number of IITs (from 7 to 16) and the opening of many more NITs. Based on a search of individual state technical education websites, we were able to get sufficient information for nine states¹² to make a reasonable estimate of the percentage of approved student intake in 2010-2011/2011-2012.¹³ We found that taking

¹² The states are Gujarat, Haryana, Karnataka, Kerala, Maharashtra, Orissa, Rajasthan, Tamil Nadu, and West Bengal. According to Banarjee and Muley, 2007, Table 1.9, engineering college intake in these states together represents about 60 per cent of the national total. We were not able to get data for Andhra Pradesh and Uttar Pradesh, two states with more than 25% of total engineering student intake. But we do not think that the pattern there is greatly different.

¹³ We limited our "count" of institutions and places to those granting Bachelor's in Engineering (B. E.) and B-Tech degrees. Most of these institutions also grant diploma (three year) degrees, and there are large numbers of Polytechnics in each state that do not grant B.E. or B-Tech degrees. We did not include those Polytechnics.

into account the expansion of intake into IITs and NITs, about 90 per cent of intake was in private unaided institutions. Data for Karnataka also suggest that admissions are only about 75% of their approved intake places in private unaided engineering colleges. Assuming that the admissions percentage in private unaided colleges is similar in other states, and that available places are all filled in government colleges and the IITs/NITs, we can calculate that about 87% of engineering undergraduate enrollment in 2010-2011/2011-2012 was in private unaided institutions. These figures are all approximate, but they suggest strongly that private engineering colleges are absorbing a high proportion of the increased enrollment in engineering.

Nevertheless, the meaning of “private” in India needs to be interpreted carefully (Tilak, 1999; 2011a). For one, all private colleges must be affiliated with a public university to be accredited, and they are subject to public university controls over curriculum and the examinations students must pass to get credit for the courses. In the Indian system, universities are distinguished from colleges in that universities as educational institutions mostly provide only graduate (generally known as post-graduate) education (some also provide limited undergraduate education); university faculty teach and do research; and universities have autonomy to organize their own curriculum for each course of study and to set their own course examinations. The more important university function is to be the affiliating body for independent member colleges. Colleges are mostly undergraduate institutions, although many offer post-graduate degrees as well. In the case of engineering studies, the public universities obtain considerable oversight from national public bodies such as the All India Council of Technical Education (AICTE) in technical education, the Medical Council of Education in medical education, and the UGC in general education, all of which regulate the curricula in each field of study.

Private affiliated (aided and unaided) institutions and public colleges and universities are also subject to *central/state* government controls over their admissions and tuition policies. They must admit certain percentages of disadvantaged students by category of students. Indian states regulate tuition for a high fraction of the students admitted by private unaided college, including affirmative action students and those scoring high on state government administered college entrance tests.

This complex public-private relation that governs more than 50% of enrollment in the higher education sector and close to 90% of enrollment in engineering make it extremely difficult to define the meaning of private in Indian higher education. “Private” includes a high formal degree of government control over the content of the curriculum and the standards used to measure learning, hence what should (not necessarily does) takes place in higher education classrooms, but also includes the freedom for private unaided colleges to accumulate surplus and expand operations.

The rapid expansion of unaided colleges affiliated with universities is gradually transforming not only the landscape of where students choose to go to post-secondary education, particularly in certain fields, but also seems to be gradually transforming the role of public universities into regulating, degree-granting institutions and away from teaching or research (Kapur, 2010). They are also acting as a strong pressure group against giving autonomy (deemed university status) to private colleges. At the same time, it is difficult to imagine that universities and state and federal agencies (AICTE) are able to keep track of this mass of self-sustaining institutions and their academic operations. In the words of an analyst, “These private institutions are helping to meet the growing demand that the public

sector cannot. Private institutions are less subject to political instabilities and day-to-day political pressures that often bedevil public institutions in developing countries. They are also more nimble and able to respond to changes in demands from employers and labor markets. Yet despite these positives, these institutions are of highly variable—and often dubious-quality” (Kapur, 2010, p. 6). They are also subject to pressures from their management bodies, which may be governed more by economic or political considerations than educational.

Factors that makes possible fee-based colleges as the main vehicle of enrollment growth in India are the limited supply of undergraduate places in public and private aided colleges and, because of the low fraction of college age youth in higher education, the relatively high social class of students is currently in the market for college places. Such students’ parents are willing and able to pay tuition fees, in some cases very high tuition fees, for their children to get a college education. In our survey of final year students in four-year engineering colleges, we found that 80% of students’ fathers and 60% of students’ mothers in the sample had college education. In India, this is an extremely high socio-economic group. A second condition is that the government fixes tuition for students from disadvantaged castes at a relatively low level. We show later in the study that another condition favorable to the growth of private education is a high rate of earnings payoff to a college education, and it is especially high to graduates in technical fields.

How robust these conditions are as the higher education system expands to incorporate increasing numbers of Indian youth is a major question. The answer will clearly impact the strategy for expansion. As we show for Brazil, which has a larger fraction of college age youth in college, the private higher education sector faces increasing excess capacity as it fails to incorporate lower socio-economic background students. As in India, the private sector is of lower quality than the public system and of particularly low quality for students who do not qualify for low tuition places and cannot afford to pay high fees.

Brazil’s Dual Higher Educational System

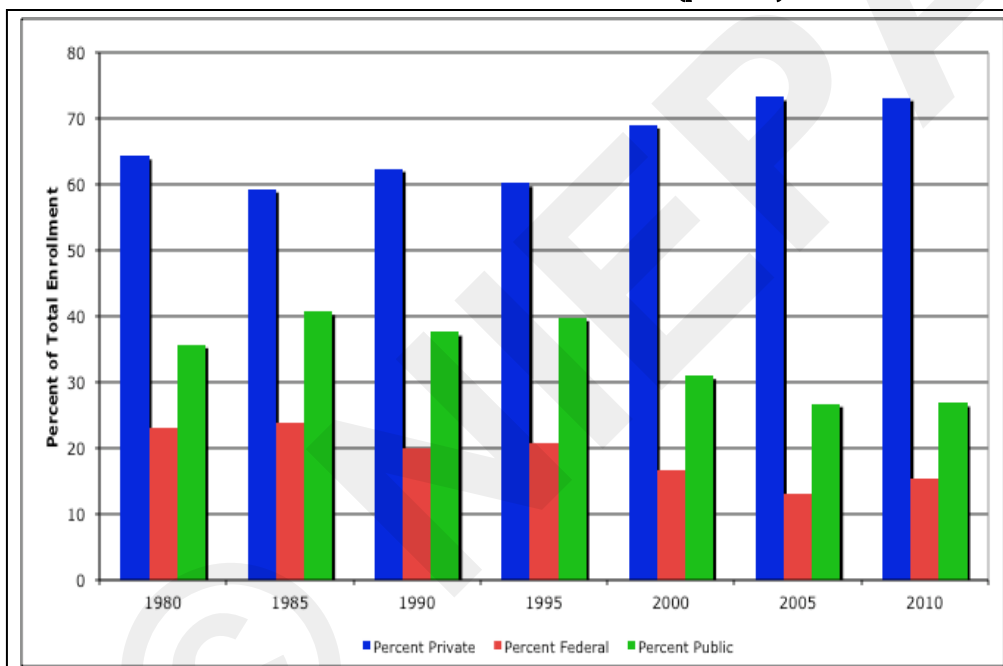
As noted, Brazil’s higher education system is the product of a post-colonial history deeply rooted in primary good export production and the generally limited expansion of the education system. In the 1970s and 1980s, for example, gross enrollment in higher education was a low 5-12% of the age cohort.

This limited access to higher education in Brazil meant that the average social class of students enrolled was very high. By the 1980s, with the gradual decline of elite public higher secondary schools, more than 60% of public university students had attended private secondary schools, suggesting that their families could afford the considerable tuition to send their children to private secondary education, many hoping to gain access to free public higher education.

Like in China and India, then, Brazil’s major higher educational expansion came late, in the 1990s. The proportion of Brazilian students attending private higher education has been high for many decades (it reached 60% in the 1970s), but the expansion after 1997, unlike enrollment growth in 1980-1995, was almost entirely absorbed by private institutions. Enrollment in the higher education system as a whole increased from 1.8 million students in 1995, of which 1.1 million were in private institutions, to 2.7 million students in 2000, of which 1.8 million were in private institutions, to 5.4 million students in 2010, of which 4.0

million were in private institutions. Between 1997 and 2010, the proportion of higher education students in public universities, centers, and other types of institutions declined from more than 39% to 28%. Among institutions designated as universities, attended in the past 30 years by somewhat more than one-half of higher education students, the increase in private enrollment has been steadier, rising from 38% to 58% in 1980-2010. Yet, even in this category, the increase accelerated in the years after 1996. Figure 2 shows this pattern of enrollment expansion.

FIGURE 2
Brazil: Proportion of Higher Education Enrollment in Public, Private and Public Federal Institutions, 1980-2010 (per cent)



Source: INEP. Various years. Sinopse Estadístico da Educação Superior. Brasília: INEP.

Thus, Brazil's higher education system is very different from the other BRICs in three important features: First, public universities have traditionally been essentially free (similarly to the other BRICs in the 1980s) and continue to be free of tuition (this is only true in the declining proportion of "free" places in Russian universities). Second, a high fraction of university and other post-secondary students attend private institutions, where they pay tuition to cover much, if not all, of the costs of running those institutions. Third, a number of those private institutions are religious-based, almost all Catholic. These are partly subsidized by religious organizations and have non-profit status, but they still charge tuition—many of them relatively high tuition.

This presents an interesting paradox. Since the system of (public) federal universities and many of the state universities are among the most prestigious in the country and students who are admitted pay no tuition, most of the "best" students (as in the other BRIC countries) try to enter programmes of study at public universities, particularly federal

universities. There are also prestigious private universities; so students who score high on the end of secondary school examination may also attend such private institutions. As everywhere, those who score high on the secondary school test are also likely to come from higher social class families, and, in addition, from private secondary schools. In addition, public, particularly federal, universities spend much more per student, on an average, than most private universities. Therefore, the public sector invests far more, on an average, in the higher education of children of wealthier families than of the poor.

And like India and Russia, Brazil uses entrance examinations for secondary school graduates to allocate free (or in India, lower tuition) places in the best public universities. In Brazil, these examinations are not universal, although this is changing, with the federal government pushing for the use of a single federal entrance examination, called the ENEM. Almost all federal and most state universities have their own examinations, and so do many private institutions (some have shifted to the ENEM). These individual university entrance examinations are all classified under the generic name *vestibular*, or entrance test. As in the other three BRICs, there is wide variation in the number applicants per available place by type of university and programme of study. The most demanded programmes of study in Brazil are medicine, health/pharmacy; and applied social sciences. In 2001, there were almost 40 applicants per place in federal and state institutions in medicine, 19 in health/pharmacy, and 15 in applied social sciences (Schwartzman, 2004, Table II). Engineering and computer science was fourth, with about 12 applicants per place in public universities. Even in private institutions, the demand for medicine was high, with 12 applicants per available place. However, this was not true of other programs of study in private institutions, where in 2001, only 1.8 students applied for every place, compared to almost 10 applicants for every place in public institutions (Schwartzman, 2004, Table II; also Table 3).

With the enormous expansion of private higher education and the moderate expansion of public institutions after 1997, we would expect that the ratio of applicants to places would fall in the private sector and less so in the public. That is indeed the case. Table 4 shows that the ratio of applicants to available places fell sharply in private institutions, and less in public universities. However, that is only part of the story. Whereas in public institutions, very few places go unfilled, private higher education has a growing overcapacity. By 2004, about one-half the available places went unfilled, up from 22% in 1997, although this proportion has not increased since 2004 (Table 3). Students therefore appear to apply in large numbers to private institutions, most as a hedge against not being admitted to a public university, but a significant fraction of those admitted to private universities (essentially everyone who applies) do not attend even if they are not admitted to a federal or state university. Certainly, tuition costs act as a barrier for many. On the other hand, almost everyone who is admitted to a federal or state university apparently accepts admission. That said, the number of new entrants to private universities increases every year. The interesting question is why the private sector has created so many new higher education places when they are not being filled.

Engineering and computer science students are an increasing percentage of Brazilian undergraduates. Engineering enrollment increased in the past ten years from 180 thousand students in 1999 to 546 thousand in 2010, rising from 7.5% of the total in 1999 to 10% in 2010. If we add in computer science majors, the percentage has increased from 9.4% to 11.9% (INEP-a, *Sinopse*, various years). Engineering students are also more likely to be

enrolled in public universities than the entirety of the Brazilian student body, although this is gradually changing. The percentage of engineering students in private institutions is increasing more rapidly than the overall percentage. In 1999, less than 49% of engineering students were in private institutions; but by 2010 this had risen to 64%. In the same period, the total of students in privates increased from 65% to 73%.

TABLE 3
Brazil: Ratios of Applications and Unfilled Places to Available Places,
by Type of Institution, 1994-2010

<i>Year/Type of Institution</i>	<i>Number of Applicants (thousands)</i>	<i>Available Places (thousands)</i>	<i>Applicants/ Available Place</i>	<i>Enrolled (thousands)</i>	<i>Unfilled Places (thousands)</i>	<i>Unfilled/ Available Places (percent)</i>
1994						
Federal	683	85	8.0	76.3	8.7	10.2
State	523.8	58.5	9.0	55	3.5	6.0
Municipal	85.6	33.9	2.5	28.7	5.2	15.3
Private	944.6	396.9	2.4	303.4	93.5	23.6
1997						
Federal	752.4	88.7	8.5	86.4	2.3	2.6
State	577.7	64.3	9.0	60.5	3.8	5.9
Municipal	95.7	40.8	2.3	34.9	5.9	14.5
Private	1290	505.4	2.6	392	113.4	22.4
2001						
Federal	1198.2	123.5	9.7	121.2	2.3	1.9
State	962.6	101.8	9.5	97.1	4.7	4.6
Municipal	63.3	31.2	2.0	26.3	4.9	15.7
Private	2036.1	1152	1.8	792.1	359.9	31.2
2004						
Federal	1287.6	124.0	10.4	122.9	1.1	0.9
State	1058.9	131.7	8.0	125.4	6.3	4.8
Municipal	84.9	52.8	1.6	38.9	13.9	26.3
Private	2622.6	2011.9	1.3	1015.9	996	49.5
2010^a						
Federal	2,252.5	248.5	9.1	269.2	-20.7	(-)
State	1,041.4	138.3	7.5	134.9	3.4	2.4
Municipal	70.9	58.5	1.2	31.6	26.9	46.0
Private	3,334.1	2,674.9	1.2	1,366.2	1,308.7	48.9

Source: Ministerio da Educacao, INEP, Diretoria de Estatísticas e Avaliação da Educação Superior (2005). *Censo da Educação Superior 2004, Resumo Técnico*. Brasília: author, Tabelas 28, 41, 54; Ministerio da Educacao, INEP, Diretoria de Estatísticas e Avaliação da Educação Superior (2010). *Sinopse Educação Superior, 2010*. Brasília: author, Tables 4.1 and 4.3.

Note: a. 2010 data for number of applicants and available places refer to those subject to selection process through the vestibular or other examination; enrollment data refer to total enrollment, whether by selection or other processes.

Table 4 shows the evolution of engineering and computer science graduates over this same period of time. Whereas engineering enrollment represented 6.5% of total enrollment in 2004, engineering graduates only represented 6.1% of total graduates from Brazilian higher education institutions in 2010, six years later. This suggests that engineering students graduate at a somewhat lower rate than students studying in other programmes. The data

also show that Brazil only graduated 51 thousand engineers in 2010 and another 14 thousand computer scientists. As a proportion of the population, this is less than India (India produced more than 300 thousand graduate engineers in 2009) and much less than China or Russia, but as much proportionately as the United States.

TABLE 4
Brazil: Higher Education Engineering and Computer Science Graduates,
1999-2010

Year	Number of Graduates (thousands)			Per cent in Private Institutions		
	Total Higher Education	Engineering Programs	Computer Science	Total Higher Education	Engineering Programs	Computer Science
1999	324.7	18.7	6.3	65.4	44.9	68.3
2003	528.2	24.8	10.7	68.0	47.6	73.8
2005	717.9	30.5	15.6	72.7	58.4	78.8
2007	756.8	40.3	14.0	74.4	56.6	77.1
2010	829.3	50.7	14.3	78.5	62.3	81.1

Source: INEP, *Sinopse Educação Superior*, 1999, 2003, 2005, 2007, 2010, Table 6.2

Another important issue is who attends public and private higher education institutions? As Schwartzman (2004) noted, the assumption was that the much more selective federal and state universities would enroll a much higher social class student able to take advantage of their cultural capital and investing in better secondary schools. Meanwhile, private institutions would enroll those lower social class students who could not gain access to free public higher education. This assumption turns out not to be correct, in part because the proportion of youth 18-24 years-old who attend higher education in Brazil was still very low in the first decade of the 2000s.¹⁴ According to Schwartzman, in 2002, 48% of students in private institutions came from families whose earnings were in the top 10% of household incomes, whereas only 35% of students attending public institutions came from such rich families. Less than 4% of students in private institutions came from families in the bottom 40% of income earners, whereas almost 8% of students in public institutions (still not a high percentage) came from that low income segment. Eckert Baeta Neves (2009) made similar estimates for 2007 and found that 34% of the students enrolled in private institutions came from families in the top decile of income earned, compared to 30% of those enrolled in public institutions. About 8% of students in private institutions came from families in the bottom 40% of income earners and, about 13% of students in public institutions came from families in that socio-economic group. Thus, although the proportion of students attending university from the lowest income families may have increased somewhat with the great expansion, approximately from 3% to 8% in private institutions from the bottom 40% of income earners and an increase from 7% to 13% in public

¹⁴ Schwartzman (2004) estimated that the “net” rate (number of students 18-24 years old enrolled in higher education as fraction of all 18-24 year-olds in the population) of enrollment in 2002 was only 9.8%. Compared to a 16.6% “gross” ratio, which compares all students enrolled with the 18-24 year-old population), the “net” enrollment ratio is similar to that in India.

institutions from that group. Yet, the main point still holds true: students attending private higher education institutions are somewhat more likely to come from families with high income than students attending public institutions. This is the opposite of what we would have expected, given the higher academic requirements for getting into public institutions.

Two efforts are underway to increase access by lower income students to university. The first, conducted by individual universities, each in its own way, is affirmative action for students of color of low income who, in some university programmes, attended public secondary school. The second is a recent programme to subsidize low-income students' tuition in private universities that agree to participate in the programme. Given the high excess capacity in many private institutions, this is a profitable way to fill seats and do good at the same time, provided that the federal government, under whose purview private institutions fall, can effectively monitor them so that they provide good academic training for the subsidized affirmative action students. We discuss these programmes in more detail later in the study.

In the early 1990s, Castells (1991) and Carnoy (1993) identified the shift from the "political" and elite formation roles of Latin American universities to a more "scientific-technical" objective as a key reform for future success. This was the result of the expansion and differentiation of Latin American higher education. Brazil was just beginning its major enrollment expansion by significantly increasing private higher education. The system had moved to a more "meritocratic" selection process, relying more on examinations, and was about to increase greatly the number of places available, albeit in private, tuition-based institutions. Competition was already fierce to get into the better institutions and into the more "desirable" and "technical-scientific" programmes, such as medicine, pharmacy, business (applied social science), and engineering and it was increasingly possible to do those programmes in private institutions. The transformation of the Brazilian system from the highly politicized universities of the 1950s and 1960s was fairly complete even though, as we have seen, they remain mainly accessible to youth from families that earn high incomes. The probability of an 18 year-old from a family in the bottom 40% of the income distribution to attend a university is about 1.5-2 per cent.

In addition to the *vestibular*, Brazil introduced testing in the final year of university programmes in the late 1990s. The Cardoso government feared that many private universities absorbing the vast majority of new students coming into the system were of low quality. Of the 30 universities with the largest enrollment in 2008, 19 were private—the five biggest, with a total of almost 500 thousand students, were private (INEP-b, 2009, Table 1.2). Government regulation of Brazilian private universities is minimal, so the concern that secondary students refused entrance to public universities may be paying for poor quality higher education is real. The *Provaõ*, as the test was called, was replaced in the early 2000s by the ENADE in response to criticism that universities took students of greatly varying initial scores, so were unfairly gauged by a final test. The ENADE tested students at the end of the first year of their course work and in the penultimate year. Not all programmes are tested every year, but it is possible to have a good idea from the ENADE of programme quality, and the federal and state universities are much more likely to be at the top of the ratings even when value added is the measure. We discuss such measures of programme quality later in the study, but it is worth mentioning here that, for example, in 2008, of the top scoring 300 computer science departments on the ENADE test (of 653 that took the second specific competencies test), 215 were private programmes, 48 were federal, 30 were

state, and 7 were municipal. Of the bottom scoring 353 programmes, 321 were private, 20, municipal, 8, state, and only 3, federal. Although this is not a value-added evaluation, it does suggest the hierarchy of programmes, and a large number of otherwise unregulated private programmes are characterized by low end of course scores.

One interesting aspect of the Brazilian government effort to monitor programmes through testing is that it is a continuation of the rationalization and differentiation of the higher education system. Another is that its purpose is mainly to inform the public of programme ranking based on aggregate student final scores rather than direct monitoring of programmes, quality of teachers, drop-out rates, or other criteria that might be much more relevant to overall quality than a final score on a test which could be largely a function of incoming scores. Peer effects are important to students, and probably the most important to most Brazilians in choosing among programmes (other than tuition cost), but just knowing the *vestibular* score of entering students would serve to know what academic level students attend each programme. The ENADE data could be used to approximate value added in each programme, taking into account drop-outs and other factors, but this has not been done to date. Thus, its main impact, if any, is to send a signal to private institutions that they are being monitored.

Russia's Post-Soviet Move Toward Universal Higher Education

Since Leninism and Stalinism controlled intellectual discussion through the Party apparatus, universities became largely centers of high-level technical training, where specific technical knowledge was privileged. In the industrial model of the time—"Fordism," in Antonio Gramsci's (1971) terminology—the Soviets considered that the educational system should produce young people for particular, technically well-defined jobs in State-run and State-prioritized industries, even to the extent of linking technical universities directly to those industries (many of these technical universities still exist, even though the industries themselves are in severe decline or barely exist).

As the command economy went into economic and political crisis in the late 1980s and early 1990s, funding for higher education declined by about 40% and so did enrollment, by about 10%. Beginning in 1995, however, funding and enrollment recovered, and Russia witnessed an enormous increase over the next 12 years in the number of students seeking degrees. In public institutions, enrollment more than doubled, and combined public and private, increased by 2.8 times. By 2008, Russia had one of the world's highest percentages of young people enrolled in higher education (see Table 1, showing the number per 100 thousand population).

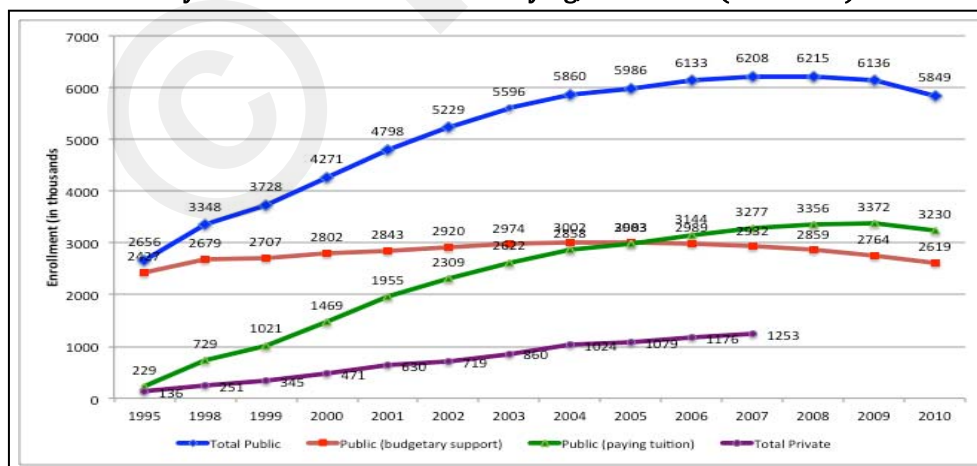
With its already high proportion of the age group attending post-secondary institutions, there was no radical transformation of public higher education itself. The Russian government continued to allocate government paid places to universities for different fields of study, by university and by field, based largely on historical numbers. This practice has maintained demand for "traditional" fields of study, since students apply for free places by field. As in the past, these places were allocated to the highest scoring students on entrance exams (as India allocates low-tuition places). Until recently, each university administered its own entrance examination, so students applying to multiple universities had to take multiple examinations. This was part of the attempt to maintain the "meritocratic" allocation of students to various universities, but it promoted considerable corruption, with teachers

from each university ready and willing to prepare students for that university department’s examination. In 2001, the federal government initiated, and in 2009 fully implemented a national examination in each subject that all applicants would take, but certain universities could also supplement the national examination with a university test. This national examination has yielded interesting results in terms of the average entering test scores by department and university.

The Yeltsin government did make an important change financially (that opened the door to the great expansion) in the early 1990s by introducing private cost sharing (tuition) for “excess demand” over and above the free places. Tuition-based financing had a particularly large effect on highly demanded fields of study such as economics and business, and, as Figure 4 shows, by 2006, almost one in two students in Russian government institutions was paying tuition. This has continued to increase, and the figure stood at 55 per cent in 2010. Most universities moved to expand enrollment in fields that would draw tuition-paying students, since that was money the universities controlled. Many public universities established branches in different regions and even in small towns. Often up to 90% of student places in these branches were tuition-based.

Along with the introduction of a large number of small private institutions (as in China) to handle the “overflow of the overflow” of tuition paying students in public universities, cost sharing and private education helped to finance the rapid increase in enrollment after 1990, especially after 1998 when economic growth recovered. As of 2007, of the 7.5 million students in Russian higher education in 2007 (including a small percentage in distance education), more than 60% were either paying tuition in public institutions (44%) or were attending a private institution (17%). If we assume that enrollment in private institutions increased somewhat to 1.3 million by 2010, the proportion rose to 63% paying tuition.

FIGURE 3
Russian Federation: Higher Education Enrollment in Public Institutions,
Fully Subsidized Places and Fee-Paying, 1995-2006 (thousands)

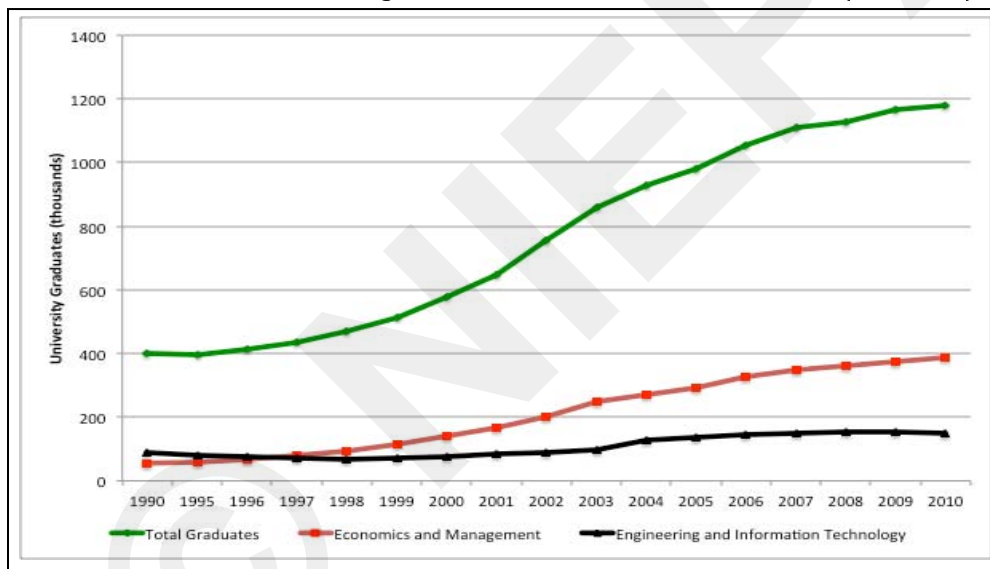


Source: Federal Service for Government Statistics. 2011. *Russian Statistical Yearbook*. 2011. http://www.gks.ru/bgd/regl/b11_13/IssWWW.exe/Stg/d2/07-56.htm (accessed August 3, 2012).

In 1990, Russia already had considerable enrollment in engineering education at the undergraduate level. Although this has declined in percentage terms, in the 2000s, about 13-14% of higher education students (including polytechnic education) graduated in the field of engineering and engineering-related technical specialities. This means that probably about 150 thousand young Russians graduate annually with some kind of specialist engineering or computer science degree (see Figure 4). This is less than India and China, but relative to its population, Russia produces more engineering graduates than either of those BRICs, and far more than Brazil. In 2010, Russia graduated 37 thousand “specialists” (five year degree) in electronics and informatics, far less than India or China, but almost as many as the total of all engineering graduates in Brazil.

FIGURE 4

Russian Federation: Specialist Graduates from Public Russian Higher Education Universities, Economics & Management and Technical Fields, 1990-2010 (thousands)



Source: Federal Service for Government Statistics. 2011. *Russian Statistical Yearbook*. 2011. http://www.gks.ru/bgd/regl/b11_13/IssWWW.exe/Stg/d2/07-56.htm (accessed August 3, 2012).

Not only is Russia unique among the BRICs in its early massification of higher education, it is unusual among all the world's countries in another way: it has reached such a high level of incorporating youth into post-secondary institutions that for the next ten years or so, a more general slowdown of population growth (common to many European countries) is resulting in an absolute decline of youth seeking to enter higher education. This, combined with the economic recession of 2008-2009, has major implications for reforms in higher education.

Summing Up the Great Expansion

In the last decade of the 20th century, four of the world's most populous countries began to expand significantly their higher education systems. Three of these countries—China, Brazil, and India—had small proportions of their college-age youth in university as late as in the mid-1990s. However, this situation changed rapidly in Brazil and China, and, even with relatively smaller proportional change (although this seems to be speeding up in the past few years), the very size of India's population made her higher education expansion huge in terms of absolute numbers of students and graduates. The fourth country, Russia, already had large numbers of students attending universities, thanks to 50 years of Communist ideology emphasizing high level technical education to support Soviet industrial and military development.

The characteristics of these new expansions were different from the way university systems increased enrollment in the past. Unlike the United States, Europe, and even Russia earlier in the 20th century, *all four BRIC countries relied heavily on direct tuition payments by families to bring in large numbers of new students into higher education institutions.* Russia and China emphasized cost sharing in public institutions as well as allowing private institutions to handle "overflow," whereas India and Brazil promoted the expansion of private universities and colleges charging students tuition to cover costs—in Brazil, this has been carried to the point where only about one-fifth of students attend public institutions. In effect, the fully subsidized public universities that still dominate European education and, until the 1970s were the norm in the United States, still exist in Russia and Brazil, but they only serve a minority of students.

Another feature of the new expansions are the *highly competitive allocation of students to higher cost institutions through State-and-public university-run examination systems*—a continuation and amplification of the "meritocracy" movement of the 1940s in the United States, with all its defects. At the same time, all these systems provide for the possibility that practically any student who completes secondary school can go on to some form of higher education if they are able and willing to pay. Thus, in the three countries (Brazil, China, and India) where there is still relatively limited access to "good" public universities—the social class background of students who attend private universities and colleges is higher than for students who attend public universities and colleges despite the greater difficulty of gaining access to much lower tuition public institutions. Although the social class background of students in the good public universities is also very high in these countries, increased numbers of lower social class students are entering higher education, and this is particularly true in public higher education institutions.

This results in an interesting pattern of subsidies to more academically talented higher social class students, at the same time as less academically able higher social class students have to pay rather high fees to attend generally less good private institutions. In any case, access to universities for lower social class students to higher education is limited except in Russia, with its extremely high proportion of students in the post-secondary system and in India, where lower caste students are afforded entrance to colleges under a broad affirmative action programme. In Brazil's affirmative action programmes in public universities and government incentive programmes to admit more low-income and black students to private universities is also beginning to have an effect on student social class composition.

Another major difference between China and Russia/India/Brazil is the relative enrollment in technical education. Engineering students represent about 32% of all undergraduate students in China, and the percentage is higher in elite versus non-elite universities. More than 40% of Chinese Ph.D. students study in some engineering field. Given the huge numbers of university students in China, the engineering graduates the system produces is also very large—in 2009, more than 700 thousand graduates annually more than 10 thousand engineering Ph.Ds. annually (NBS, 2010; NSF, 2010). In Russia, enrollment in technical higher education has been growing less rapidly than overall enrollment (since economics/business administration is the fastest growing field of study), but students in technical fields still represent about one in seven higher education students. This enrollment is disproportionately (compared to total enrollment) filled under the Russian government's quota of tuition-free places. Thus, unlike China (and India and Brazil), engineering is not a field that is increasingly sought by incoming students. As we will show, this is somewhat paradoxical because, in addition to economics/business, the payoff to engineering education remains high in the Russian labor market.

China has a high percentage of students enrolled in engineering courses, but the figure is not increasing; in contrast, the growing demand for engineers in India and Brazil's labor markets is having a major effect on enrollment rates in engineering, particularly in India, where in 2010, about 15% of undergraduates entered engineering/technical education, more than double the proportion ten years earlier, and Brazil, where the percentage is increasing more slowly, is still the lowest among the BRICs, but up to 11% in 2010, likely to surpass Russia in the next five years.


Although Chinese universities charge students tuition to become engineers and Russia mainly does not, in both countries, engineering students are heavily subsidized in their studies. This is much less true in Brazil, where more than 60% of engineering students are in private institutions paying full tuition (still, this is less than the more than 75% of all undergraduate students who attend private institutions) and 35+% are fully subsidized in public universities. India is the extreme case: about 95% of engineering students enroll in private institutions. Although many of them are subsidized by government controls on the amount of tuition they pay, the subsidies are far lower than in Russia and China.

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PTA Members' Participation in Primary Education — A Case Study of Tribal Areas

Vasanta Srinivasa Rao*

Abstract

Community participation is one of the strategies to implement educational programmes to achieve Universalisation of Elementary Education (UEE). Right to Education Act, 2009 emphasises community participation in the decision making process in primary education. Prior to the Act, however, various education programmes were trying to build the community structures at school level. Parent Teachers Association (PTA) is one of such committees through which the objective of UEE could be achieved. The present paper brings the empirical evidence to find out the PTA members' participation in tribal areas. The findings of the study reveal that these members need more attention to locate themselves as members of PTA.

* Centre for the Study of Social Exclusion and Inclusive Policy (CSSEIP), School of Social Sciences, University of Hyderabad, Gachibowli, Hyderabad-500046 Email: vasanthacnu@gmail.com

Introduction

Community participation is the catch phrase and popular in the field of international development not only in the area of education, but also other fields such as health and watershed management (Datta and Virgo, 1998; Ramachandran, 2001; Sekher, 2003; Swift-Morgan, 2006). It can be explained that "participation is involvement by a local population and, at times, additional stakeholders in the creation, context and conduct of a programme or policy designed to change their lives" (Jennings, 2000, pp. 1). Paul (1987, pp. 5) in a World Bank report, defined community participation as "community participation refers to an active process whereby beneficiaries influence the direction and execution of development projects rather than merely receive a share of project benefits." Vimala Ramachandran (2001, pp. 2244) while defining it, says that community participation means participation of the disempowered who do not have an access as a community, as a geographic area or even as a gender.

In education, community participation in schooling delivery has emerged as the best practice to achieve universal primary enrolment while improving the quality and relevance of teaching and learning. In the context of global movements such as Education for All (EFA), which aims to ensure that all children have access to free and quality primary education by 2015 (UNESCO, 2000), many countries are under increasing international and domestic pressure to meet these goals. India is one of them facing this pressure to achieve EFA especially in the case of marginalised communities such as Scheduled Tribes. While stating the importance of participation for tribals, Heredia (1995, pp. 891) says that to address the tribal minority status they have to participate in their own development where education plays a pivotal role.

The education programmes such as District Primary Education Programme (DPEP), *Lok Jambish* and *Sarva Shiksha Abhiyan* (SSA) have realised the importance of various community groups at micro level and have constantly been trying to link them to schools. Some of the states such as Madhya Pradesh and Andhra Pradesh have been seriously making efforts to link the local elected representatives from *Panchayat Raj Institutions* (PRI) to these structures (Govinda and Diwan, 2003). As a result of these constant efforts to bring community members closer to the schools made by different states through the implementation of different education programmes since the mid of 1980s, the literacy levels of some of the backward states also have suddenly risen in 2001 Census.

Right to Education Act and Community Representation¹

The recent Act, the Right of Children to Free and Compulsory Education Act, 2009, also realised these facts and emphasised the need of parents' involvement in children's education. The Act tinted the imperativeness of the School Management Committee (SMC) in which parents, elected local representatives from PRI and teachers to be made part of it. The Act clearly explained the functional role of the SMC and wanted it to be accountable for

¹ The argument that the author brings in this section on 'total representation' and 'limited representation', is purely his own understanding on so called 'education committees' mentioned in the Right of Children to Free and Compulsory Education Act, 2009, to impress upon that limited representation is not a means to achieve universal objectives (UEE).

children's education at school level (GOI, 2009a, pp. 7). The model rules under this Act specially demarked the duties of parents and teachers in proper functioning of the schools (GOI, 2009b, pp. 8). The composition of the SMC as described in the Act is as follows:

A school ...shall constitute a School Management Committee consisting of the elected representatives of the local authority, parents or guardians of children admitted in such school and teachers: Provided that atleast three-fourth of members of such Committee shall be parents or guardians: Provided further that proportionate representation shall be given to the parents or guardians of children belonging to disadvantaged group and weaker section: Provided also that fifty per cent of Members of such Committee shall be women (GOI, 2009a, pp. 7).

What we can understand from the composition of the SMC in the Act with reference to community participation is that representation of the community in primary education is a priority. However, on the grounds of 'representation' mentioned in the Act, one could criticise the Act because it emphasised the 'limited representation'² of the community members in the SMC. The previous studies, in some of the states, made an effort to assess the functioning of the Village Education Committees (VEC)³ (Banerjee et al, 2007; Srinivasa Rao, 2009; Pandey et. al, 2010). The limited representation in these VECs led non-participation of the community due to village level community dynamics and lack of accountability. Keeping in view of these facts in operationalisation of the SMCs at village level, I realise that Parent Teachers Association (PTA) is such a committee where one can find the 'total representation'⁴ of parents and teachers to be made accountable for the school functioning. It is because the PTA consists of all parents of school going children and all teachers in the school are members. Hence, PTA fulfils the criterion of 'total representation' to participate in the decision making process of school related activities. In view of the argument that the PTA fulfils the principle of 'total representation' and concurring upon that participation of disempowered community is necessary to realise the goal of UEE, the present study brings the empirical evidence about the functioning of PTA members in tribal areas of Andhra Pradesh.

Almost all states and union territories have constituted PTAs under DPEP and expected to strengthen during the implementation of SSA. These PTAs play a key role in micro-planning, especially in the development of village education plans and school improvement plans. The members in PTA are seen as the mechanism for the functioning of school. It is felt

² 'Limited representation'-, as to the, the author, means that are numerically representing limited (selective or elective) members to the SMC, where parents of all the school going children are not part in the committee.

³ Name of the VEC is not uniform in all the states across India. For example, in 2001, the Government of Karnataka ordered all schools to set up School Development and Monitoring Committees (SDMC) replacing the earlier VECs (Centre for Child and Law, [nd], pp. 3). In 2006, the Government of Andhra Pradesh ordered all the schools to set up School Education Management Committee (SEMC) replacing the earlier VECs (GOAP, 2006). However, the Right of Children to Free and Compulsory Education Act, 2009, named it as 'School Management Committee' (GOI, 2009a, pp. 7).

⁴ Total representation'-, as to the, the author, means that are numerically representing total (without selective or elective) members to the PTA, where parents of all the school going children are part in the committee. In this study, total representation also means not just the executive committee alone, but the general body of all the parents and teachers together.

by the major education policies that decentralisation of primary education at grass-root level enhances the overall educational development of the tribal community (GOI, 1986, pp. 98-102). The general body of PTA has to meet minimum not less than two times in a year to discuss various issues related to school. The PTA, in Andhra Pradesh, performs its functions as per the Andhra Pradesh School Education (Community Participation) Act 1998 (GOAP, 1998, pp. 2). In this paper, an effort is made to present the awareness and participation of the PTA members in the selected sample villages in tribal area.

Methods

The present study was carried out in three mandals⁵ in Rampachodavaram *agency*⁶ area of East Godavari district, Andhra Pradesh. A multistage sampling method was employed for the selection of mandals, villages and respondents. Three mandals, out of seven⁷, namely, Gangavaram, Maredumilli and Y.Ramavaram were selected based on the lowest literacy rate according to the 2001 Census.⁸ Total 26 villages were selected, from these three sample mandals, based on the systematic sampling method at 10% of the total number of villages in each mandal. Total 165 respondents were chosen, from these 26 sample villages, by simple random sampling method representing parents and teachers. Among 165 sample respondents, 118 were parents representing four to five from each PTA and 47 were teachers. List of PTA members (both parents and teachers) was accessed from the schools. The techniques adopted for data collection were structured questionnaire, focused group discussions, field observations and verification of school records.

Respondents' Background

The villages, selected for the study, have more than 93% of households belonging to Scheduled Tribe community. They are in a distance of ranging from 3 to 184 km from their mandal headquarters and most of them are located in a hilly terrain area. These villages lack basic facilities such as electricity (31%), post-office (9%), bus facility (16%) and anganwadi centres (44%).

⁵ Mandal is a revenue division in the district, which earlier was called *Tehsil*. This is an intermediatory administrative setup between district and village *panchayat*.

⁶ Usage of the term *agency* is the legacy of the colonial government which identified the areas of tribal concentration as *agency* areas. These agency areas, in India, are administered with different policy formulation.

⁷ In East Godavari district total 11 mandals come under the administrative control of Integrated Tribal Development Agency (ITDA). However, four mandals (Kotananduru, Prathipadu, Sankhavaram and Yeleswaram) are in the sub-plan area, and has less than 40% of tribal population. Whereas the rest of seven mandals (Addateegala, Devipatnam, Gangavaram, Maredumilli, Rajavomangi, Rampachodavaram and Y.Ramavaram) are under the direct control of ITDA, and have more than 50% of tribal population (GOAP, 2007). Hence, for the present study, sample mandals were selected strictly from among seven mandals that have more than 50% of tribal population.

⁸ The literacy in the district, according to the 2001 Census, is 65.5% while in the study mandals Y. Ramavaram is reported with 37.4%, Gangavaram 42.5% and Maredumilli 52.4% (GOAP, 2004).

The caste background of these sample respondents varies. More than half of the parent respondents belong to Konda Reddi (51.69%), who are named as Primitive Tribal Group (PTG). The other caste groups in the sample are Valmiki (14.41%), Konda Dora (11.02%), Paragi Porja (9.32%), Konda Kammara (6.78%), Konda Kapu (3.39%) and Koya (3.39%). The education background of these respondents also varies from primary education (44.1%), illiterates (39.8%) and upper primary education (10.2%). These respondents are mostly marginal farmers (66.1%) and 16.9% do not possess any land. Their livelihood comes mostly from occupations such as agricultural labour (41.5%), shifting cultivation⁹ (35.6%), daily wage labour (15.3%) and a few of them are agricultural farmers (6.8%).

The social background of the teacher respondents selected for the sample is that majority of them belong to Konda Reddi (63.83%), and other caste groups are found to include Koya (12.77%), Valmiki (12.77%), Konda Dora (2.13%) and others (8.51%). Most of these teachers qualified for Intermediate education (42.55%) and secondary education (40.43%). The teachers qualified for under graduation are 12.77% and even some of the teachers are found with primary education (4.26%) as their qualification.

Findings

Awareness

It is shocking to note that only 29 respondents out of 118, which is less than one-fourth (i.e. 24.58%) of the parent respondents are aware of the fact that PTA exists in their villages, whereas in the case of teacher respondents it is 55.32% (Table 1). While explaining about the structural constraints of PTA functioning, Kondla Bhimreddi (the person who said, he is not aware of the existence of PTA in the village), a parent member in PTA in Sindhuvada village of Y. Ramavaram mandal, said, "In the village whoever has interest in the school seems to try to involve. There is no organised group of any kind to motivate and pressure us to participate in the school activities. We seek to involve out of our interest as a parent". Here, Kondla Bhimreddi's response is quite interesting. He opined that no structured committee exists in the village; however, a few parents are involved out of their interest irrespective of committees. Similar to the above views, Thurram Bullidora, a teacher member in PTA (the teacher who said, he aware of his membership in PTA) in Kothapakalu village of Y. Ramavaram mandal, said, "Parents send their children to the school. I believe, that itself is a great job as their involvement". It is appreciated that sending their children to the school definitely a great job for parents. However, it is not only the job for them. They are expected to perform other functions as well to 'control' the 'school activities' by holding regular meetings and common decisions for 'universal objectives'. To hold this, the National Policy on Education, 1986 (GOI, 1986, pp. 98) says:

People's involvement should lead to establishment of closer linkages between educational institutions and the community, improvement in relevance and quality of education, reduction of absenteeism and irresponsibility, greater access to

⁹ Shifting (slash and burn) cultivation is locally known as the *podu* cultivation and it is generally on the hills. This is a traditional agricultural system of semi-nomadic people, in which a small area of forest is cleared by burning. The burning area is cultivated for 1–5 years. In the next stage, it is discarded for soil fertility and crop yields fall and weeds impinge (Allaby, 1998).

community resources and better discipline in the management of educational institutions.

TABLE 1
PTA Members' Knowledge on Various Indicators Related to their Awareness

<i>Question Asked</i>	<i>% of PTA members gave positive response/yes</i>	
	<i>Parents</i>	<i>Teachers</i>
Are you aware of the existence of PTA?	24.58	55.32
Are you aware of your membership in PTA?	32.20	29.79
Are you aware of school planning?	10.17	12.77
Did you participate in the school planning?	2.54	10.64
Are you aware of your roles as a PTA member?	27.97	31.91
Have you received any training on roles of PTA?	11.86	63.83
Are you aware of financial grants of school?	0.00	17.02
Is there mid-day meal scheme in the school?	100.00	95.74

Source: Author's Field Survey

Among the parent members, who are aware of their membership in PTA (32.20%), only 27.97% of them are aware on their roles as PTA members. Whereas in the case of teachers, it is found to be slightly going up with 31.91% (Table 1). The data also speaks that 72.03% of parent respondents and 34.04% of teacher respondents in the PTAs are not aware of their roles (Table 2). According to the Andhra Pradesh School Education (Community Participation) Act, 1998, one of the important responsibilities of the school headmaster is to form the PTA before June 30 of each academic year. Subsequently, they should be oriented on their roles and responsibilities (GOAP, 1998, pp. 12-13). This is what the above Act endorsed to the school headmaster. The point to remember here is that the situation of not having awareness on their roles among the PTA members in the tribal villages is a major concern and an alarming one. The Mandal Education Officer (MEO) has to act upon this and should take responsibility to form PTAs and provide necessary orientation to them in all the tribal villages, so that community members may be involved in the school related activities.

The Act further clearly explains about the school fund creation, maintenance of the school fund accounts, preparation of school budget and mostly involvement of community/parent members for utilisation of these funds for various purposes of the school development (GOAP, 1998, pp. 15-17). The field survey revealed that none of the parent members in the PTAs are aware of financial utilisation of school funds. Even in the case of teacher members, only 17.02% are aware of these financial procedures. In a similar study on School Management Committee (SMC), it was identified that neither the community members in SMC were fully aware of the financial resources of school nor the teachers were sharing these financial transactions with the community members (Srinivasa Rao 2009, pp. 64). As Gorle Prabhakar, a teacher member in the PTA in Yedlakonda village of Y.Ramavaram mandal puts it: "I am not aware of any financial grants to this school. I was not paid my salary for last three months. We run classes for these children in a temporary community

shed". That the major policy norm that community should be made part of school financial transaction is totally neglected in tribal areas.

Contrary to the above findings, however, almost all the respondents (parents 100% and teachers 95.74%) are aware of the mid-day meal scheme (Table 1). Vanthala Chandramma, parent member in PTA in Sindhuvada village of Y. Ramavaram mandal said, "I ask teachers about the ration in the mid-day meal". This fact gives the sense that meal is utmost priority for tribals, which is an immediate need, and they respond positively. Disclosing the similar findings in their study, Dreze and Goyal (2003, pp. 4675) found that the mid-day meal scheme was successful in tribal areas comparatively in other parts of India. It was also revealed that active community monitoring and general awareness makes any programme a successful one (Sinha, 2008, pp. 61).

Yet, among the 27.97% of the parents who were aware on their roles as PTA members, 16.95% revealed that their role is just monitoring mid-day meal in the school (Table 2). Kothem Laxmi, a parent member in PTA in Agavalasa village of Maredumilli mandal revealed: "During the meal time in the school, I go and observe the children as to what they are having in their meal. Usually I also discuss with cook and a few children about food". It is evident that underprivileged communities such as Scheduled Tribes have an overwhelming support to mid-day meal (Dreze and Goyal, 2003, pp. 4679). However, not a single teacher respondent summed to be aware that monitoring mid-day meal is their priority. They said that enrolling school age children in the school (34.04%), organising and participating in the PTA meetings (17.03%) and mobilisation of drop-out children (14.89%) are in their priority list (Table 2).

TABLE 2
PTA Members' Awareness on their Roles

<i>Role</i>	<i>% of PTA Members' Awareness on their Roles</i>	
	<i>Parents</i>	<i>Teachers</i>
Mobilisation of drop-out children	2.55	14.89
Enrolling the school age children in the school	8.47	34.04
Monitoring mid-day meal programme	16.95	0.00
Organising and participating in the PTA meetings	0.00	17.03
Not aware	72.03	34.04
Total	100.00	100.00

Source: Author's field survey

Participation

It is surprising to note that more than half of the parent respondents (53.39%) said that they did not participate in the school activities during their tenure, whereas in the case of teachers it is more than one-third (38.30%). The report of the Comptroller and Auditor General of India (CAG) strongly recommended strengthening these PTAs, while identifying

the similar findings that the functional status of PTAs in Andhra Pradesh is only 29% (CAG, 2001, pp. 85). The PROBE report, while observing the institution of PTA as dormant, quite interestingly cited its findings on seldom interactions between teachers and parents, saying:

Less than one-fifth of the schools surveyed had a PTA. And even the PTAs that did exist seldom went beyond formalities. Some met only on 15 August and 26 January for snacks or a brief celebration, following an earlier tradition of inviting parents to the local school on those days (1999, pp. 66).

After more than one decade of the above findings in PROBE study, the same are prevailing yet in tribal areas. It was asked from the respondents to answer in what way, as PTA members, they have been participating in the school activities during their current tenure. It is interesting to note that some of the respondents who said they were not aware that their membership in PTAs, expects them to participate in school related activities. It indicates, in a few cases, that the respondents' awareness does not influence their participation. Murla Achayamma, a parent member in PTA in Gupenagandi village of Maredumilli mandal, said, "Out of my interest... I always insist on the parents, whenever we meet in the village, to send their wards to school. I go to school to meet the teacher and enquire about my daughter's progress in the school". It is read between the lines from the above observation that the respondents' lack of awareness, in some cases, could also influence their participation. However, in policy point of view, awareness of the members makes sound sense. The interest among these community members to participate in school activities would be created by giving them the "primary administrative and financial responsibility" (Afridi, 2005, pp. 1532) and "more concrete decision-making powers" (PROBE, 1999, pp. 67) in school management.

Within the participation, out of six participatory indicators in Table 3, monitoring mid-day meal programme is a priority for the parent members (20.34%). It is evident that 'meal' is the most influent in factor for parent members in their participation. The fact, as discussed earlier in this paper on similar findings on awareness of the PTA members, is that meal and education have very close relationship among most of the tribal areas. This could be articulated something like a tribal parent dreaming: 'you ensure my child's meal, and I ensure her/his education'. The earlier studies found that the pupil enrolment and retention are much dependent variables on successful implementation of the mid-day meal scheme (Afridi, 2005; Dreze and Goyal, 2003; Jain and Shah, 2005; Kak, 2004; Khera, 2006; Rajan and Jayakumar, 1992; Rani Si and Sharma, 2008; Viswanathan, 2006).

For teacher members, for instance, mobilising infrastructure is a priority in their participation (19.15%), and mid-day meal (4.26%), however, is their least priority (Table 3). They cited some examples where they were constantly making an effort to mobilise infrastructure from the concerned department. It is not a wonder to say that some teachers in Maredumilli mandal, those have a social outlook, adopted a few schools and have been contributing some amount from their monthly salary to develop the school and make the tribal community literate in those villages. While putting in front, one of the male teachers in Gangavaram mandal explained that he lobbied a number of times with Mandal Education Officer (MEO) in various official meetings and was able to access sports items to the students, two tables and some chairs to the school. The teachers' participation in mobilising infrastructure to their schools shows their positive motivation levels and commitment while working in tribal areas. This, as Kingdon and Muzammil argue in their paper, may be one of

the positive indicators and probably may raise the students' learning in the school (2001, pp. 3184).

TABLE 3
PTA members, both parents and teachers, who said they participated/
not participated in the school activities during their tenure

Area of Participation	Parent members' participation (%)
Did not participate	53.39
Monitored mid day meal programme	20.34
Drop-out children were enrolled in the school	12.71
Monitored school activities	5.08
Participated in the school development activities	4.24
Participated in the school meetings	3.39
Monitoring the school teachers' attendance	0.85
Teacher members' participation (%)	
Did not participate	38.30
Mobilised infrastructure to the school	19.15
Created awareness among parents and children	14.89
Drop-out children were enrolled in the school	8.51
Organised parents meetings	8.51
Closely working with community	6.38
Monitored mid day meal programme	4.26

Source: Author's field survey

It is evident that 12.71% of parent members participated in a way where they got enrolled drop-out children in the school, whereas in the case of teachers' response to this indicator has been only 8.51% (Table 3). The participation levels of parents and teachers may be low, yet the parents' efforts to enrol the drop-out children in the school, is slightly on the higher side. It draws the attention of the reader that parents', being primary stakeholders in their children's education, initiation in enrolling the drop-out children in schools brings out a positive sign. However, the low level of their participation in terms of low percentage makes us more worrying.

The other indicator where 14.89% of teachers said they are constantly making an effort to create awareness among the parents and children to sensitise them to enhance their participation levels in school (Table 3). The teacher's rapport with parents and pupil improves the school's dignity and respect, as PROBE survey says from one of their examples:

The hamlet has a small primary school with a single teacher, a young adivasi by the name of Sem. When he came to Baser eight years ago, the school only had five or six pupils, and the class was held under a tree. Now most of the young children go to school. The improvement owes a great deal to Sem, who patiently built a rapport with the parents and convinced them to send their children to school. He is a committed teacher, and the school has a lively, even happy-feel (PROBE, 1999, pp. 53).

It is well articulated that only teacher commitment and his/her regular rapport would be the possible means to tie the community together. The teachers with these qualities are more required to work in the tribal hamlets. As seen in the data presented in Table 3, limited number of teachers seemed committed with this task. It is hard to escape from the reality that only 0.85% of the parents revealed that they are monitoring teachers' attendance (Table 3). To ensure healthy community participation in the school, it may not be advisable to parents and teachers to monitor each of their responsibility. Checks and balances on each of them, however, definitely bring dignity to the school, and in turn help to achieve reliable results to bring the tribal community equal to the mainstream society.

Conclusion

Participation of the PTA members in promoting their children's education in tribal areas is largely neglected. The lack of awareness on the indicators such as on the existence of PTAs, on their roles and responsibilities, on their membership in PTA and on composition of the PTA clearly speaks the above fact. However, parents' involvement in monitoring mid-day meal and teachers' initiative to mobilise infrastructure to their school are some the positive instances to say something about community participation. For greater impact, creating awareness, strong linkage between teacher and community, providing basic facilities and infrastructure at school level may be the possible ways to improve their participation in the school. When it comes to the functioning of primary education in the public schools located in the tribal areas, these gaps are not new and have been pending without addressing. In an interaction with the media, the Human Resource Development Minister Kapil Sibal said, "the community will itself have to ensure that provisions of the Right of Children to Free and Compulsory Education Act, 2009, are implemented in letter and in spirit" and "schools must be community-managed" (The Hindu, 2010, pp. 22). To execute his words, the minister, first of all, has to ensure that the above suggestions must be addressed at local level. This would help the community to grasp the Right to Education Act properly to ensure that the children 6 to 14 years of age get their due share mostly through community involvement.

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Who Perform Better and Why in Higher Secondary Examinations?

— An Analysis of 2009 Results in Tamil Nadu[#]

R. Srinivasan*
M. Karpagam**

Abstract

This article aims at analyzing the influence of school, social background of students on their performance in the Higher Secondary Examinations conducted in March 2009 in Tamil Nadu. The analysis shows that on an average, girls, urban students, students from self-financing schools, English medium schools, students who had taken science subjects, students from OC and BC communities have not only shown higher pass percentage but also higher percentage of students with more than 75 per cent of marks in the aggregate. This points to the fact that the students from the most depressed communities like MBC, SC and ST, generally study in rural, Tamil medium, government and government aided schools and relatively larger proportion of these students take economics and vocational groups, they have low pass percentage and quite a low proportion of them score more than 75 per cent of marks in the aggregate. This unequal learning outcome between the students of higher and lower communities only explain the inaccessibility to quality higher education, particularly the professional education in spite of reservation for students from the depressed communities. Thus, students of MBC, SC and ST communities suffer from double disadvantage of social and economic backwardness and the inadequacies of schools in which they study.

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* Department of Econometrics, University of Madras, Chepauk, Chennai-600 005.
E-mail: seenu242@gmail.com (Corresponding author)

** Department of Economics, Meenakshi College for Women, Chennai.

Introduction

Higher Secondary (H.Sc) is a crucial stage in one's academic career, probably a stage that lays a strong foundation for the professional career as well. A mere pass in H.Sc. examination is a challenge to many, whereas the threshold level of marks for entry into the premier institutions in higher education is increasing year after year. The success in H.Sc. examination is a confluence of individual effort, family and institutional environments. This article analyses the results of students in the H.Sc. examinations conducted by the Department of Examinations, Government of Tamil Nadu during March 2009.¹

The Research Issue

When the objectives of education are philosophical and broad and sometime vague, defining the learning outcome and its measurement is difficult. The stated objectives of higher secondary education are that education itself is a process that constructs knowledge to learn, unlearn and relearn, to work and participate in economic processes and social changes; at the same time, the school is expected to provide space for dialogue and discourse to impart values of equity, justice, freedom, concern for others' well-being, secularism and many such values that could form the basis for value-based decisions and creativity. (NCERT, 2005).

These objectives have to be carefully translated into proper curriculum design and provide opportunities to gain the level of knowledge intended to be imparted, which itself is difficult and school curriculum is mostly incomplete and inadequate. Further, there is huge gap between curriculum design and classroom experience. Hence, marks obtained in the terminal examination are not only an unsuitable measure of intended learning outcomes but also not a true reflection of the level of knowledge that the students possess. For instance, the marks obtained by students in H.Sc. examinations in Tamil Nadu do not fully reflect their mathematical ability is a recent finding.²

In spite of this inadequacy, we still use marks as the indicator of learning outcome for two reasons – one, we do not have any other reliable measure of learning outcomes and two, we are interested in analyzing the broad picture than identifying the specific reasons for the differences in educational achievements of individual students. In this article we analyse the influence of gender, location, type of school by management, medium of instruction,

¹ The Department also conducts two subsequent examinations for H.Sc. students, who have failed in March Examinations, in June and October every year. The results of these examinations are not included in this analysis. Further, we have not included the private students, that is, those students who have not appeared through any school. Such students could be either those who have failed in previous examinations or appeared without studying in a recognized school.

² Times of India reported on July 3, 2011, a study conducted by the Anna University of Chennai showed that despite scoring high marks in the H.Sc. board examinations, less than 20% of the students were able to clear a test conducted by it on known mathematics topics at the end of the first year of the engineering course. The Vice-Chancellor of the University said, 'We identified three major reasons for the performance of the students. We found that most schools skip the class 11 mathematics portions. The blue-print system adopted in schools makes students mechanically solve problems in the specified topics to increase their marks tally, leaving less scope to understand the subject'.

community, and the board of 10th class examination on the category of subjects that the students study and marks obtained in the H.Sc. examinations.³

The Broad Picture - Appearance and Pass Percentage

It is a fact that the number of students appeared has been increasing over the years; it is also true that the pass percentage has also been increasing over the years. An interesting aspect of this trend is that the girls outnumbered the boys both in appearance and pass percentage in 2009. One of the possible reasons for this smaller number of boys is that many of them join ITI after class 8 or Polytechnics after class 10. In 2009-10 as many as 93,900 boys enrolled in polytechnics compared to 9,645 girls and 78,630 boys enrolled in Engineering colleges compared to 41,444 girls (Govt of Tamil Nadu, 2010). But it is important to note that the girls' pass percentage is higher at 85.4 than 80.3 for boys. This difference of 5.1 percentage points is a clear pointer to the fact that the girls perform better than boys in spite of all-round deprivation which many of them face in day-to-day life; individual effort in the face of all odds does pay rich dividends.

TABLE 1
Students Appeared and Pass Percentage in H.Sc Examinations 2009

<i>Particulars</i>	<i>Appeared</i>		<i>Passed</i>	
	<i>Number</i>	<i>% to Total</i>	<i>Number</i>	<i>Pass Percentage</i>
A1. Girls	333464	52.9	284900	85.4
A2. Boys	296332	47.1	237810	80.3
B1. Urban	295306	46.9	252847	85.6
B2. Rural	334490	53.1	269863	80.7
C1. Govt Schools (SSLC)	299536	47.6	221853	74.1
C2. Govt. Aided Schools (SSLC)	186841	29.7	165709	88.7
C3. Self-financing (SSLC)	45038	7.2	41971	93.2
C4. Matriculation	94127	14.9	89236	94.8
C5. Other Boards	4254	0.7	3941	92.6
D1. OC	29446	4.7	27063	91.9
D2. BC	291576	46.3	255491	87.6
D3. MBC	170020	27.0	138433	81.4
D4. SC	135010	21.4	99007	73.3
D4. ST	3744	0.6	2716	72.5
E. Total	629796	100.0	522710	83.0

³ Unit level data of all the students appeared in regular H.Sc. examinations held in March 2009 were obtained from the Department of Examinations, Government of Tamil Nadu. The unit level data consist of the every student's name, date of birth, sex, register number, community and marks obtained in each of the six papers, the medium of instruction in schools and the schools are classified by the type of management, Board of Examination in Class 10, location – rural/urban, revenue districts and educational districts.

The urban-rural ratio of students appeared is more or less equal to the urban-rural divide of population in Tamil Nadu which was in the ratio 48:52 in 2010 Census. But the higher pass percentage for urban students by 4.9 percentage points compared to rural students should be probed further, which we will take up later in this article.

The schools are classified as government schools, government-aided schools, self-financing schools SSLC, matriculation schools and other board schools. The government, government-aided and self-financing schools follow the SSLC board syllabi for the 10th standard. All the matriculation schools are self-financing schools. Except a few schools, all the 'other board' schools are either government or government-aided schools. The 'other board' schools follow different syllabi of Anglo-Indian and Oriental education boards. We make this distinction because the schools' infrastructure and curriculum up to class 10 do make a difference in the success of the students in the H.Sc. examinations. We find nearly 47.6 per cent of students appear from the government schools and 22.1 per cent of students appear from self-financing schools and remaining 30 per cent of students comes from government-aided schools and an insignificant percentage of students from schools of 'other boards'.

Over the years the number of students appearing from self-financing schools has been increasing, indicating the disbelief of the parents in the efficacy of other types of schools, particularly the government schools. This is validated by the fact that the self-financing schools obtained a pass percentage of 94.3 compared to 74.1 for government schools. A clean 20 percentage points higher pass percentage is indisputably an indication of better quality of education, even if we discount for the higher entry level educational achievements of students in such schools. The government-aided schools have also done well with a pass percentage of 88.7. There is a belief that the Matriculation schools have higher standard of education compared to schools of other boards. But there is a thin one percentage point difference in the pass percentages between self-financing SSLC schools and self-financing Matriculation schools. We need to probe this further with more information on students' social background and marks, which we will analyze shortly.

The students from BC community form the largest share of the total students appeared followed by students from MBC, SC, OC and ST communities. The pass percentage of students was the highest at 91.9 for OC followed by 87.6 for BC, 81.4 for MBC, 73.3 for SC and 72.5 for ST. Thus, there is a clear link between the degree of social and educational backwardness of households and educational achievements of students.

From Table 2, we understand that English medium schools contribute nearly 28 per cent of students who appeared for H.Sc. examinations in 2009. Whereas, the pass percentage in English medium schools is nearly 91.5 compared to 79.8 in Tamil medium schools. We find that, relatively, more girls and students from rural areas, from government and government-aided schools and from MBC, SC and ST communities study in Tamil medium. Thus, the more number of boys, urban children and students from OC and BC communities study in self-financing English medium schools, which have higher pass percentage. This distinct pattern of enrolment by location, type of schools and medium of instructions, synchronizing with the gender and social divisions raises the issue of social justice in access to quality education.

TABLE 2
Distribution of Students Appeared and Passed by Medium of Instruction

<i>Particulars 2009</i>	<i>Appeared Students</i>							
	<i>English Medium</i>		<i>Tamil Medium</i>		<i>Others</i>		<i>Total</i>	
	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	
A1. Girls	88385	26.51	244036	73.2	1043	0.3	333464	
A2. Boys	86651	29.24	208596	70.4	1085	0.4	296332	
B1. Urban	116593	39.48	177972	60.3	741	0.3	295306	
B2. Rural	58443	17.47	274660	82.1	1387	0.4	334490	
C1. Govt. Schools	18616	6.25	279258	93.8	1662	0.6	297874	
C2. Govt. Aided	44775	23.96	141626	75.8	440	0.2	186841	
C3. Self-financed (SSLC)	18294	40.62	26718	59.3	26	0.1	45038	
C4. Matriculation	89521	95.11	4606	4.9	0	0.0	94127	
C5. Other Boards	3830	90.03	424	10.0	0	0.0	4254	
D1. OC	23156	78.64	6069	20.6	221	0.8	29446	
D2. BC	103211	35.40	187223	64.2	1142	0.4	291576	
D3. MBC	30017	17.65	139622	82.1	381	0.2	170020	
D4. SC	18105	13.41	116533	86.3	372	0.3	135010	
D5. ST	547	14.61	3185	85.1	12	0.3	3744	
E. TOTAL	175036	27.79	452632	71.9	2128	0.3	629796	
	<i>Passed Students</i>							
	<i>English Medium</i>		<i>Tamil Medium</i>		<i>Others</i>		<i>Total</i>	
	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>
A1. Girls	82374	93.2	201781	82.7	745	71.4	284900	85.4
A2. Boys	77737	89.7	159413	76.4	660	60.8	237810	80.3
B1. Urban	106148	91.0	146226	82.2	473	63.8	252847	85.6
B2. Rural	53963	92.3	214968	78.3	932	67.2	269863	80.7
C1. Govt. Schools	13870	74.5	206903	74.1	1080	65.0	221853	74.5
C2. Govt. Aided	4020	89.8	1085	0.8	305	69.3	41592	22.3
C3. Self-financed (SSLC)	17463	95.5	24488	91.7	20	76.9	41971	93.2
C4. Matriculation	84939	94.9	4297	93.3	0	0.0	89236	94.8
C5. Other Boards	3637	95.0	304	71.7	0	0.0	3941	92.6
D1. OC	21750	93.9	5174	85.3	139	62.9	27063	91.9
D2. BC	95570	92.6	159163	85.0	758	66.4	255491	87.6
D3. MBC	27094	90.3	111079	79.6	260	68.2	138433	81.4
D4. SC	15238	84.2	83530	71.7	239	64.2	99007	73.3
D5. ST	459	83.9	2248	70.6	9	75.0	2716	72.5
E. TOTAL	160111	91.5	361194	79.8	1405	66.0	522710	83.0

Appearance and Pass Percentage – Classification by Gender, Community and School

We have seen that, relatively, girls perform better than boys, students from self-financing schools perform better than students from government and government-aided schools and students from OC and BC communities perform better than students from other communities in the H.Sc. examinations. Cross tabulation of pass percentage between gender and type of schools and between communities and type of schools would reveal the clear role of institutions and social background in educational performances of students. In Table 2 we have classified the appearance and pass percentage by gender and type of schools.

TABLE 3
Appearance and Pass Percentage by Gender and Type of Schools

<i>S. No.</i>	<i>Schools</i>	<i>Appeared (Percent)</i>			<i>Pass Percentage</i>		
		<i>Girls</i>	<i>Boys</i>	<i>Total</i>	<i>Girls</i>	<i>Boys</i>	<i>Total</i>
1.	Govt Schools (SSLC)	48.0	47.0	47.6	77.1	70.6	74.1
2.	Govt Aided Schools (SSLC)	31.3	27.8	29.7	91.7	84.8	88.7
3.	Self-financing (SSLC)	6.8	7.6	7.2	93.3	93.1	93.2
4.	Self-financing (Matriculation)	13.3	16.8	14.9	96.1	93.7	94.8
5.	Other Boards	0.6	0.7	0.7	96.4	88.9	92.6
6.	Total	100.0	100.0	100.0	85.4	80.3	83.0

We could see from Table 3 that the boys versus girls ratio is more or less equal in government schools and girls study in larger proportion in government-aided schools. The boys clearly represent in larger proportion in self-financing SSLC and Matriculation schools. Therefore, the boys preferred self-financing schools to other schools, may be the parents do not spend as much for girls. The girls performed better than boys across all types of schools. The difference in pass percentages of boys and girls is more in government and government-aided schools than in self-financing schools. This could be a reason for boys to prefer the self-financing schools to other schools that we noted earlier. The pass percentages of both boys and girls are higher in self-financing schools than in government and government-aided schools. Thus, it is clear that girls perform better than boys and the self-financing schools have larger pass percentages than those of the government and government-aided schools.

Table 4 shows the percentage of appearance and pass percentage by community and type of schools. We find nearly 55.7 per cent of students from OC community are in self-financing SSLC and Matriculation schools. Conversely, we find the larger proportions of students from the most depressed communities like MBC, SC and ST are from the government schools. The proportions of ST students from self-financing and matriculation schools are a little higher than those of the SC students and lower than those of MBC students. So it is amply clear that the majority of the students of the depressed communities are dependent on the government schools.

TABLE 4
Percentage of Appearance and Pass Percentage by Community and Type of Schools

<i>Schools</i>	<i>OC</i>		<i>BC</i>		<i>MBC</i>		<i>SC</i>		<i>ST</i>		<i>Total</i>	
	<i>Aprd</i>	<i>Pass</i>	<i>Aprd</i>	<i>Pass</i>	<i>Aprd</i>	<i>Pass</i>	<i>Aprd</i>	<i>Pass</i>	<i>Aprd</i>	<i>Pass</i>	<i>Aprd</i>	<i>Pass</i>
Govt. Schools	16.7	78.3	37.9	79.3	58.6	74.8	60.7	66.1	64.7	66.3	47.6	74.1
Govt-aided Schools	24.3	91.1	33.3	90.7	25.0	89.2	28.5	82.8	21.0	83.1	29.7	88.7
Self-financing (SSLC)	7.3	95.6	8.8	94.6	6.3	93.0	4.6	87.1	4.1	80.6	7.2	93.2
Self-financing (Matriculation)	48.4	96.3	19.1	95.4	9.3	93.6	5.9	94.5	9.5	87.0	14.9	94.8
Other Boards	3.3	95.1	0.8	93.5	0.2	95.0	0.3	79.1	0.6	86.9	0.7	92.6
Total	100.0	91.9	100.0	87.6	100.0	81.4	100.0	73.3	100.0	72.5	100.0	83.0

If we analyze the proportion of appearance and pass percentage in this two-way classification, it can be discerned that the pass percentages of students from all the communities increase as we move from government schools to aided-schools, matriculation and other board schools. Thus, the educational institutions do play a significant role in the educational attainment of the students. We also find that the pass percentage of students declines as we move from OC to ST categories in all types of schools. The social background of students also plays a major role in the educational attainment of the students. Most of the students from the socially-depressed communities are from families where these students are the first generation learners. Thus, majority of the students from the socially depressed communities are handicapped from double disadvantages of the social depression and probably institutional inadequacies.⁴

Who Study What and Where?

In H.Sc., the papers are divided into two groups – languages and specialization. English is a compulsory paper for all students and the students can choose a second language paper from Tamil, Hindi, French, Telugu, Malayalam and Sanskrit. The specialization group has four papers. The specialization papers can be classified into four categories – (i) Sciences; (ii) Arts and Humanities with Commerce and Accountancy; (iii) Arts and Humanities with Economics; and (iv) Vocational Papers. Students in the first category study some combination of science papers such as Mathematics, Physics, Chemistry, Biology, Computer Science, and many other applied science papers like bio-chemistry. The students of these groups are eligible to apply for professional courses such as engineering and medicine. Among these many science groups, there is a greater preference for one group, namely, Mathematics, Physics, Chemistry, and Biology. Students of this group are eligible for admission in both engineering and medical colleges. Between Commerce and Economics, Commerce is preferred as the students want to take Commerce related subjects in under-

⁴ The Annual Status of Education Report (Rural) 2010 by Pratham, shows that since 2005, the proportion of students who cannot read a lower level Tamil text or do some simple arithmetic are higher in government schools than in private schools. It is interesting to note that the percentage of out-of-school children in the age group 15-16 is higher for boys than for girls.

graduate programmes. The vocational groups are thus designed to prepare the students to take up a job after H.Sc.; it is difficult to identify preference for these courses. One can infer that this is the least preferred group from the fact that quite an insignificantly small number of students study these courses in self-financing SSLC and Matriculation schools; may be these courses do not impart adequate level of suitably employable skills.

Table 5 gives the comparison of the proportions of students appeared and passed in these four subject groups. The Sciences category is the most preferred among the five categories, because the students with a pass in the courses from this category are eligible to get admission in almost all the under-graduate courses from professional to general higher education streams.

TABLE 5
Distribution of Appearance and Pass by Groups

<i>Groups</i>	<i>Appeared</i>	<i>Passed</i>	<i>Appeared (Percentage)</i>	<i>Pass Percentage</i>
Sciences	353633	302818	56.1	85.6
Commerce with Arts & Humanities	169286	136971	26.9	80.9
Economics with Arts & Humanities	15935	12053	2.5	75.6
Vocational Courses	90942	70868	14.4	77.9
Total	629796	522710	100.0	83.0

The 'Commerce with Arts and Humanities' is the second most preferred group. Next to professional education, there is a clamor among students to take up higher education in commerce related subjects as it is perceived that they provide more employment opportunities than other disciplines. The vocational courses are offered only in those schools where such courses were started decades ago. Hence, there is a fixed number of seats in these groups and generally new courses in these groups are not started. Moreover, the students from these courses are also admitted in regular higher education institutions. Hence, the enrolment in this group is higher than the enrolment in 'Economics with Arts and Humanities'.

Pass percentage is the highest in Science groups followed by Commerce group. Students of these groups are driven by the motivation to get into professional higher education, hence, the higher pass percentage. There are other reasons, which we shall take up soon. The Vocational Courses group posted higher pass percentage than Economics group, because in the former group nearly 50 per cent of marks are awarded for practical papers, in which all the students score higher than in the theory papers. Similarly, nearly 150 to 200 marks are offered for practical papers in Science groups, and this is one of the reasons for higher pass percentage in Science group compared to Commerce group.

Table 6 reveals some interesting distribution of appearance and passes percentage by subject groups, community and school. Though more than 83 per cent of students have taken Science or Commerce groups, we find 94 per cent of the students from OC and 85 per cent BC communities have taken either Science or Commerce groups, whereas it is only 72 per cent for the students from SC community. At the other end, on the whole only 17 per cent of the students have taken Economics and Vocational courses, and only 6 per cent of students

from OC community and nearly 18 per cent of students from MBC and SC communities have taken these groups. Thus majority of students from the socially and educationally backward classes have taken courses that do not provide the opportunity to take up professional higher education.

TABLE 6
Distribution by Subject Group, Community and School

S. No	Particulars	SCIENCES		COMMERCE		ECONOMICS		VOCATIONAL COURSES		Total	
		APRD	PASS	APRD	PASS	APRD	PASS	APRD	PASS	APRD	PASS
A1	OC	18697 (63.5)	17459 (93.4)	8942 (30.4)	8168 (91.3)	273 (0.9)	207 (75.8)	1534 (5.2)	1229 (80.1)	29446	27063
A2	BC	175639 (60.2)	157853 (89.9)	73837 (25.3)	63474 (86.0)	5599 (1.9)	4399 (78.6)	36501 (12.5)	29765 (81.5)	291576	255491
A3	MBC	93233 (54.8)	78081 (83.7)	45531 (26.8)	36059 (79.2)	4287 (2.5)	3335 (77.8)	26969 (15.7)	20958 (77.7)	170020	138433
A4	SC	64093 (47.5)	47961 (74.8)	39864 (29.5)	28490 (71.5)	5705 (4.2)	4061 (71.2)	25348 (18.8)	18495 (73.0)	135010	99007
A5	ST	1971 (52.6)	1464 (74.3)	1112 (29.7)	780 (76.0)	71 (1.9)	51 (71.8)	590 (15.8)	421 (71.4)	3744	2716
B1	GOVT SSLC	148448 (49.6)	112108 (75.5)	84998 (28.4)	61583 (72.4)	10263 (3.4)	7313 (71.3)	55837 (18.6)	40849 (73.2)	299546	221853
B2	GOVT AIDED SSLC	94897 (50.8)	86118 (90.7)	54530 (29.2)	47853 (87.8)	5407 (2.9)	4536 (83.9)	32007 (17.1)	27202 (85.0)	186841	165709
B3	SELF-FINANCING	31775 (70.6)	30071 (94.6)	10565 (23.5)	9473 (89.7)	206 (0.5)	147 (71.3)	2492 (5.5)	2280 (91.5)	45038	41971
B4	MATRIC	75712 (80.4)	71894 (95.0)	17823 (18.9)	16791 (94.2)	48 (0.1)	46 (95.8)	544 (0.6)	505 (92.7)	94127	89236
B5	OTHER BOARDS	2801 (65.8)	2627 (93.8)	1380 (32.4)	1271 (92.1)	11 (0.3)	11 (100.0)	62 (1.5)	32 (51.6)	4254	3941
C	TOTAL	353633 (56.1)	302818 (85.6)	169286 (26.9)	136971 (80.9)	15935 (2.5)	12053 (75.6)	90942 (14.4)	70868 (77.9)	629796	522710

Nearly 99 per cent of students from Matriculation schools and 95 per cent of students from SSLC schools have taken Science and Commerce groups. Less than 80 per cent of students from government and government-aided schools have taken Science and Commerce groups. Thus, majority of students from OC and BC category study Science courses in self-financing schools that ensure highest pass percentage, whereas, the proportion of students from the MBC, SC and ST communities appearing in 'Sciences' category from the self-financing SSLC and Matriculation schools is relatively low. Therefore, the probability is higher for students from OC and BC communities than of the students from MBC, SC and ST communities to get into science and technology streams of higher education.

The proportions of appearance of the students from MBC, SC and ST communities in the 'Economics' and 'Vocational Courses' category were relatively higher, but sadly such courses do not provide the base to get access to professional and science courses in higher education. It appears that the students from the MBC, SC and ST have little chance of getting access to

the most sought after sciences and social sciences courses in higher education. We shall be able to establish this fact with a detailed cross-tabulation of pass percentage and percentage of students scoring more than 75 per cent marks, that is, scoring more than 900 marks in aggregate, by communities and schools for the Science groups.

Table 7 gives the percentages of students passed and scored more than 900 marks in the Science groups. We find that the difference between the two percentages increases as we move from the OC to ST. This shows that not only the number of students from the depressed communities passed is less but also the number of students obtained more than 900 marks is abysmally low.

TABLE 7
Percentages of Students Passed and Scored more than 900 Marks
in Science Groups

Category	Particulars	Govt	Govt-aided	Self-fin SSLC	Self-fin Matric	Other Boards	Total
OC	Pass %	80.4	92.7	96.8	96.3	96.2	93.4
	>900 %	24.1	44.9	68.9	65.6	64.6	55.8
	Difference	56.3	47.8	27.9	30.7	31.6	37.6
BC	Pass %	80.8	92.5	95.9	95.6	94.3	89.9
	>900 %	14.8	35.1	54.2	57.0	54.6	36.4
	Difference	66.0	57.4	41.7	38.6	39.7	53.5
MBC	Pass %	76.5	90.9	94.0	93.8	96.0	83.7
	>900 %	8.6	28.0	45.3	49.9	52.2	22.0
	Difference	67.9	62.9	48.7	43.9	43.8	61.7
SC	Pass %	65.9	84.8	88.7	91.2	81.8	74.8
	>900 %	4.0	17.9	29.7	40.7	36.4	13.0
	Difference	61.9	66.9	59.0	50.5	45.4	61.8
ST	Pass %	67.7	83.9	81.1	87.5	92.3	74.3
	>900 %	2.9	15.5	22.6	38.2	53.8	11.5
	Difference	64.8	68.4	58.5	49.3	38.5	62.8
Urban	Pass %	77.6	91.0	92.4	94.7	94.7	88.5
	>900 %	12.7	33.9	44.7	55.4	57.9	34.9
	Difference	64.9	57.1	47.8	39.3	36.9	53.5
Rural	Pass%	74.7	90.3	95.6	95.3	88.1	83.2
	>900 %	9.0	25.0	52.3	55.5	35.9	24.5
	Difference	65.7	65.3	43.3	39.8	52.2	58.8
Female	Pass %	77.7	93.4	94.8	96.1	96.7	87.2
	>900 %	10.9	33.5	50.1	60.0	63.8	30.1
	Difference	66.7	59.9	44.8	36.1	32.9	57.1
Male	Pass %	72.9	87.3	94.5	94.0	91.0	83.9
	>900 %	9.0	27.1	49.8	51.6	46.2	28.4
	Difference	63.8	60.2	44.6	42.4	44.8	55.6
English Medium	Pass %	75.5	90.8	96.4	95.0	96.0	92.5
	>900 %	19.7	39.0	61.9	55.9	59.4	49.6
	Difference	55.8	51.8	34.5	39.1	36.6	42.9
Tamil Medium	Pass %	79.2	90.8	92.9	93.8	72.2	81.6
	>900 %	9.3	26.9	38.4	46.1	9.9	17.2
	Difference	70.0	63.9	54.5	47.6	62.3	64.4

Similarly across all communities the difference in the two percentages increased as we move from government schools to government aided schools and then to self-financing schools. This shows that the self-financing schools not only turn out larger pass percentage but also larger proportion of them with greater than 900 marks. Larger proportion of students from OC and BC communities studied in self-financing schools and most of them scored more than 900 marks; larger proportion of students from MBC, SC and ST communities studied in government schools and an insignificantly smaller proportion of them obtained more than 900 marks. This explains the inequality in access to professional education for the students from both the OC and BC communities on the one hand, and the students from the other depressed communities on the other.

Even if we take other classification of students by location of schools, gender and medium of instruction, we find generally the urban schools do better than rural schools as per the three indicators. Generally the rural government and government-aided schools perform quite badly than the urban government and government schools; whereas the difference in performance of the rural and urban self-financing schools is not that large. We also find the girls have performed better than boys and the difference is not so high in self-financing schools when compared to government and government-aided schools. Strangely the difference in performance between English Medium and Tamil Medium schools is quite large, if we consider that mother tongue is the best medium of instruction in school. This is because of the fact that most of the Tamil Medium schools are government and government-aided and most of the English Medium schools are self-financing schools. Thus, the students from OC and BC community studying in self-financing English Medium schools have higher probability of getting into professional colleges than others.⁵

Conclusion

In spite of the fact that marks in the terminal examinations do not fully reflect the learning outcomes of the students, in the absence of a better indicator, we resorted to analyzing the marks obtained by students who appeared through schools in the H.Sc. examinations conducted by the Department of Government Examinations, Government of Tamil Nadu during March 2009. We find the association between characteristics of students segregated by community, location and gender, and the school characteristics like type of management, groups that the students have taken in the H.Sc. and medium of instructions. We find generally girls outnumber boys in total appearance, whereas the girls are way ahead of boys in pass percentage. We also find that generally more number of boys, students from urban areas, OC and BC communities study in self-financing English medium schools, and a majority of them take Sciences and Commerce groups. Further, relatively a large proportion of these students pass with distinction in the H.Sc. examinations, thus, increasing their probability to get into professional courses and premier institutions in higher education. Generally more number of girls, students from rural areas, from depressed communities like MBC, SC and ST study in government and government-aided schools, a substantial portion of them take either Economics or Vocational groups. Not only the pass

⁵ Times of India reported on July 4, 2011, that only 2.5% of the total medical seats in government colleges went to students from government schools in 2008-09 and 2009-10.

percentage of these students is low, the percentage of students with distinction in H.Sc. examinations is also lower; thus reducing their probability to get into professional courses and premier institutions. The fact that most of the students from the depressed communities study in government and government-aided schools where the seats for Sciences and Commerce groups are relatively lower and the pass percentage and percentage of students with distinction are the lowest, they suffer from double disadvantage of social and economic backwardness of their communities and the inadequacies of the schools. From the social justice perspective, it is essential that the government and government-aided schools should not only provide access to education but also provide access to high quality education.

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Making Schools Work

Amman Madan*

BARBARA, Bruns, Deon FILMER, and Harry Anthony PATRINOS (2011): Making Schools Work—New Evidence on Accountability Reforms; Washington DC: World Bank, (<http://siteresources.worldbank.org/EDUCATION/Resources/278200-1298568319076/makingschoolswork.pdf>) {Retrieved February 9, 2012}

This essay tries to critique the World Bank's accountability perspective, which is growing increasingly influential in India, through a discussion of a recent World Bank publication which draws out the implications of several studies conducted through the accountability perspective. I try to locate the intellectual and institutional dimensions of the accountability perspective and to juxtapose them with other approaches of getting public institutions to function. The central focus is on schools, but perhaps much the discussion could be generalized to public service delivery systems at large.

The study of schools as organizations has unfortunately not been a well developed area in India. This is a way of looking at schools which has far reaching implications. How we imagine the way in which people perform their roles in a school is linked to how we pose several kinds of questions about the daily functioning of the school and to the kind of answers we find acceptable. If, for instance, we see teachers as ordinary employees, who are expected to do what the school's authorities want them to do, then our attention turns to the ways in which employees are made to follow orders. This may lead to asking how their salaries are ways of pushing them in certain directions. Alternatively, we may see teachers as driven by the meaning of their work and actively seeking better communication with their students. Such a model of the teacher will lead to asking how the intrinsic meaning of teaching can be enhanced and how more dialogic relations established. There may be many combinations possible in-between these two poles and, of course, there may be other ways, too, of imagining the teacher.

The real, breathing everyday life of schools, teachers and children is influenced by the organizational and institutional contexts within which they work. Partially shaped by deliberate, conscious plans and partially shaped by processes which operate below our consciousness, the organizational aspect of schools is where our understanding of teaching and learning is actually acted out. It is where we get pressures and pulls of many kinds and

* Azim Premji University Pixel B, PESSE Campus, Near NICE Road Junction, Hosur Road, Bangalore-560100 E-mail: ammanm@gmail.com

where our initiative and joy in teaching can be encouraged or suppressed. An important antidote to the individualist myth of the teacher is to note the different organizational models from which arise different kinds of teachers. While it is true that teachers may exercise choices and can choose to rise above their organizational contexts, the latter makes a prominent contribution to the form and meaning of their choices and of their work.

When we concern ourselves with improving school education, there are several micro-sociological or organizational visions available for us to use. One way of classifying the visions is in terms of a contrasting set of poles that have come to be called technical-instrumental and cultural approaches, respectively (Christiensen, et.al. 2007). Technical-instrumental approaches tend to highlight the use of rules and compulsion and of setting up formal systems which nudge actors towards a specific set of choices. They have drawn from different discourses, with the most widely known being the loose cluster of doctrines and theories which has been called New Public Management (NPM) (Hood 1991, Barzelay 2001). It has strong roots in neo-classical economics as well as in a narrower form of political science. It claims to be a solution to the problems of the traditional bureaucratic paradigm through two important strategies—giving greater choices to clients of public services and weakening the self-serving tendencies of state employees, making them more responsive to people's needs. Its solutions have tended to focus on rational choice-making and on creating the conditions which direct people's choices into desired pathways. It is argued that public institutions like schools share the key characteristics of private institutions; many of the same processes and methods can be used in them. The concerns and directions of the top are expected to be implemented by employees in efficient and competitive manners. The strategies it recommends typically include measures like re-structuring remuneration, the capacity to recruit and discharge staff, detailed surveillance of behaviour and outputs and so on.

The cultural, or rather, the cultural-political approach is relatively more sensitive to the norms and traditions which shape organizations as well as to the distribution of power within and without them. Organizations are believed to be formed not just by formal rules and norms but by the cultures which emerge within them. Actors have bounded rationalities and articulate particular understandings of the frame of reference. Individuals and groups take initiatives within organizations under the guidance of their own norms as well as from their corporate political interests. The goals of the top are not the only points of consideration but must jostle and co-exist with the goals of other participants in organizations. The measures taken from the point of view of this approach include efforts to build cultures, organizing teacher education and setting up processes of dialogue and discussion. Teacher and student identities and the processes of identity work are seen as integral to how teaching and learning takes places. Improvement of schools takes the form of the cultivation of commitment rather than, say, greater scrutiny of what a teacher is doing and rewards/penalties for the same. A drastic overhaul of an institution would entail a grasp of its politics and a struggle to rework it through relationships and cultures. This clearly calls for quite a different kind of imagination of what works and what does not work in comparison with one which looks mainly at salaries and rules.

In practice many educational systems actually incorporate elements of both approaches (and the two poles above do not exhaust all the possibilities either). Improved teacher education and the building of professional pride in teaching, for instance, may go alongside more selectively directed teacher salaries. However, as Paul DiMaggio and Walter Powell

(1983) famously argued that isomorphism of organizational structures is often spread through individuals and groups who move to other sites and try to create there the forms they were themselves most familiar with. These constitute myths or intermeshing systems of ideas of how things work. They are held onto, learnt and spread through social networks. Whether they really do what they claim to do may or may not matter. What is important for the survival of a myth is whether it is able to persuade enough people to believe in it. Its correspondence with reality is usually not the only consideration for its survival.

The technical-instrumental approaches have gained an ascendance under a globalizing political economy, especially with the enthusiastic propagation of NPM by the World Bank and IMF. In our generation international bureaucracies have gained considerable visibility in the domain of education. Institutions like the World Bank embed a largely technical-instrumental perspective and that has become quite influential in shaping how national bureaucracies formulate the challenges they are faced with and the solutions they propose. In contrast, cultural-political approaches are less well organized and have fewer powerful champions.

The World Bank's Accountability Framework

An influential document from the World Bank, describing how it expected to improve public service delivery systems, including schools, was its *World Development Report 2004* (WDR2004). This spelt out what has come to be known as the World Bank's accountability approach. Ideas of accountability and ways of making institutions and individuals perform in a contractual manner are a central feature of NPM and the turn to technical-instrumental approaches (Power 1997; Strathern 2000).

The WDR2004's accountability approach works through an abstract model of what makes public services deliver. The WDR 2004 uses the term "accountability" in a special and broad sense. It does not just mean answerability or whether an institution or actor can be held to account. Instead, it refers to five intertwining processes that together influence whether an institutions delivers or not (World Bank 2003, p. 47). The five processes being: *delegation* (asking a service provider to do a job, nominating officials and so on); *financing* (ensuring sufficient resources are available); *performing* (the actual doing of the tasks which the service provider is charged to); *information* (an assessment of the quality of the performance of tasks); and *enforceability* (giving feedback to the service provider). These can take many forms in different contexts, ranging from getting a municipality to collect garbage regularly to school bureaucracies running their schools well.

The accountability framework is useful in helping us visualize many kinds of processes that lead to successes and failures in public delivery. It is not and neither is it claimed to be an explanation of everything in the world (World Bank 2003, p. 51). The accountability framework is a somewhat formal shorthand for key functional processes which may be needed whenever a public service is actually delivering what some actors want it to deliver. As a middle-range theory, it does not tell us why states actually want to deliver a certain kind of education; and nor does it embed within itself a social psychology that explains why the public servants do or do not perform. As a formal model, in spite of its limited scope, its advantages are that it helps us to recognize a wide variety of processes which may have different kinds of driving intentions or pressures. Among its lacunae are the absence of competence or cultural knowledge from the parameters which decide whether a public

service will actually deliver. Nor is the connection between accountability and the broader processes and institutions of democracy clarified.

One of the virtues of the accountability framework is that it spells itself out in a clear way so that its implications can be scrutinized. The same cannot be said for another kind of theoretical formulation which does not necessarily flow from the accountability framework but nonetheless seems to ride with it. This is not articulated in as clear and conscious a manner, but exists nonetheless. It is the authors' and perhaps the World Bank's vision of how to get organizations to actually function and is much more directly connected to the technical-instrumental approach. This focuses largely on formal organizational structures and on their rules and incentives. To its credit, the WDR 2004 is not explicitly dogmatic. It does not propose that privatization is the solution to all problems; and nor does it see the public sector as the root of all evils (see, for example, World Bank 2003, pp. 113-114). The WDR 2004 argues that while government-run services must continue and there is no question of replacing them, there are also benefits to strengthening the client's voice (World Bank 2003, pp. 64-65). It accepts that all over the world historically the shift from private to government-run schooling is what achieved mass education. It has a prudent approach to examining which administrative technique works and which does not and under what conditions success or failure was obtained. At the same time, after all the cautious balancing of advantages and disadvantages has been done, it seems a little more sympathetic towards school choice (World Bank 2003, pp. 127-128) and to incentive-based teacher motivation (World Bank 2003, p. 124) than to building up better run public schools or to cultivating cultural processes which lead to greater motivation.

Making Schools Work – Testing the Accountability Framework

In the years following the publication of the WDR2004, the World Bank worked with academic, government and civil society researchers to conduct a series of studies in developing countries. *Making Schools Work* is a review of 22 studies from across 11 countries of reforms done through the accountability framework. It asks whether they have led to improvements in schools and what lessons can be drawn from these studies. The authors, Barbara Bruns, Deon Filmer, and Harry Anthony Patrinos echo the line taken by the WDR2004, albeit with fewer qualifications to their claims. They reiterate that the process of conveying citizens' voice to the state and get it to function better is the "long route", whereas getting that voice to speak immediately to the service provider is declared to be the "short route" (pp. 9-12). It is accepted that there are market failures which make it necessary for the government to mediate schooling. However, there are also asserted to be many government failures which call for the short route to be encouraged. Significantly, all attention is paid only to innovations that cultivate the short route and none to the political and cultural processes which could get the government to be more responsive and thereby improve the education bureaucracy itself, rather than finding replacements to its command and communication system.

More insights into the theoretical framework which underpins the book are given by its citation of incentives as the key to understanding why public services fail to deliver.

That the effective use of resources hinges critically on the incentives faced by system actors is a core insight from economics (p. 10, emphasis in original).

Political processes which can convey the voice of the under-privileged or political institutions and organizations which amplify that voice are only a thin hazy part of the solutions. Similarly, cultural processes which build commitment or a worldview that guides action are not central to the way the authors find worth following. Commitment to the processes of incentives defined as money or vouchers or promotions is considered relevant, but not commitment to teaching per se. At the conceptual level, there is a difficulty in recognizing and planning for processes that incorporate the dimensions of politics and culture.

The main chapters of the book deal with three core strategies of improving schools: (a) the use of information for accountability; (b) decentralizing schooling management; and (c) the use of incentives for teachers. The effects of these strategies of getting schools to improve are examined through a relatively rigorous approach towards research. There is a certain pride, and understandably so, in the methodological rigour exemplified in the reviewed studies. Impact assessment of experiments and policies has been done with a prospective orientation, looking to establish causality, rather than just correlation. The majority of the studies were randomized control trials with a specific element being introduced into a situation and a comparison of the changes it brought about with a control group. Randomization was emphasized so to minimize the effects of biases creeping in through selectively introducing the innovations in certain kinds of schools rather than others. Some studies had difference in differences and regression discontinuity designs.

Information and Accountability

Gathering, providing and circulating information about services has been a key aspect of accountability processes. Information-based accountability schemes appear to have worked well in cases which do not deal directly with learning outcomes. For instance, in Philippines it led to a quantum leap in availability of school textbooks in remote areas. In Uganda regular newspaper publicity of the quantum of grants being given to primary schools led to regularity and an increase in the flow of resources. This also led to an increase in students examination scores.

Information-based accountability's direct connection with learning scores, however, seems to be a more difficult question. The use of information for improving teaching and learning is of two main kinds: (1) giving inputs to teachers and school management for improvement of teaching and learning; and (2) giving inputs to the community and the state. The latter in turn can take several forms. It may involve making greater choice possible between alternatives in service providers. Or it could lead to encouraging and giving pointers to the local community in participating in school affairs. It could also be about enabling the local community to have more impact and momentum in influencing state policies governing schools.

In the US, the UK and New Zealand testing based systems had become well developed from the 1990s and information was being collected and shared on the performance of students as well as of schools as a whole. This was used in various ways by different countries' education bureaucracies to sanction or reward schools. Among the important questions here are whether this system actually led to an improvement in the learning by students. Or whether this shift towards testing and information use only improve examinations scores without affecting learning scores. Bruns et.al. accept that the think, the

evidence is inconclusive and ambiguous. Some studies in the US say that an improvement has taken place while others are unable to observe the same (p. 39). In the UK a highly regarded study suggests that under-privileged students may actually be doing worse than before the reforms (p. 40).

A study conducted in Chile, which has a well developed school voucher system, examined the results of newspaper publicity and awards for high performing schools. However, this did not show any improvement in learning outcomes or on the choices made by parents. In four studies conducted in middle and low-income countries (India, Pakistan and Liberia), different kind, of information was provided to parents and teachers over periods from three months to two years. No sanctions were imposed on poor performers and nor was any explicit incentive offered. In that sense, these experiments tested a “weak accountability”. In three out of four studied, this led to small but statistically significant increases in students' learning.

Information, the authors accept, is not enough to change schools all by itself. Several factors seem to go into whether information can be effective in actually improving the teaching and learning in schools. Information may be conveyed in a vague or incomprehensible manner. It may go to schools when they have little power to change their own conditions, instead of going to those who do have that power. Information alone may not be enough. However, somehow this does not lead the authors into a search for other conceptual schemes that might help to understand why increased information may often not lead to any improvement.

School-Based Management

School based management (SBM) is the second main thrust of the book. By this is meant a shift towards loosening schools from control by regional and national bureaucracies, towards greater control at the level of the school and its neighbourhood. Bruns et.al. say that the major actors who get freed up to become decisive in the school are now the principal, the teachers and the parents. Each of them may tug in a different direction with a corresponding hotch-potch of results. It is possible that the principal and the school administration may constrain teachers so much as to hobble their functioning. The teachers may consider their own interests more important than those of the students and the community. The community may air its own views on education and obstruct the teachers and the administration from doing their job. Or, ideally, a balance may be struck through some mechanism of accountability, which leads to the best possible forms of learning.

The accountability approach's interpretation of SBM relies largely on setting up local committees which gain financial and administrative control over the school. These are expected to achieve that all important balance through which the right decisions would take place in schools. Principals would then be able to hire the right kind of teachers, give incentives for better performance, dispose of non-functioning teachers and so on. It would be possible to decide upon the right kind of curriculum and pedagogic strategy to be followed by teachers. Resource mobilization and its management would also become easier. Greater trust between the local community, the teachers and the school administration would lead to a much smoother functioning of the school. Active local committees are indeed to be found in the countries which show the best results in international standardized tests. Efforts to set up SBM in countries like Australia and USA are reported to have led to

statistically significant improvements in school scores, though it may take up to a decade for the differences to show up.

In developing countries SBM has been promoted since the 1980s. In three older studies which allowed at least eight years before examining the consequences of SBM on learning scores, Brazil showed no improvement, whereas the implementation of SBM reforms in Nicaragua and Mexico did lead to an improvement (pp. 103-104). Studies taking up a randomized control trial approach found that in El Salvador, which had a strong form of SBM implemented, including the power to hire and fire teachers, school attendance improved (p. 105), but learning outcomes did not (p. 106). A study in Nicaragua found that where school autonomy was more in the law rather than in practice, no difference was to be found in learning levels. However, where it was actually found to have been implemented well, there was an improvement in promotions as well as mathematics and language in primary school and in language in secondary school (p. 107). Guatemala, too, has reported improved learning levels.

Developing countries which introduced moderate and weak forms of SBM reforms are examined with rather weaker standards of rigour. Studies from there report results after as low as eighteen months of SBM (pp. 110). Results tend to be positive, but cannot be said to be unambiguous. Kenya, for instance, introduced contractual teachers and over the short-term these were observed to be getting somewhat better results than regular teachers (pp. 110-111). Training given to parents on how to manage teachers, seemed to improve the functioning of regular, government teachers, too. Short-term results from efforts to increase the involvement of parents in building and maintaining school infrastructure in Mexico also tended to be positive. Similar trends, admittedly weaker in methodological rigour, were to be seen in Indonesia, Philippines, Nicaragua and several other countries where various versions of SBM were tried.

The authors accept there can be social and political processes which defeat or severely limit SBM (pp. 132-133). However, the implications of this for the SBM perspective itself are not noted. There is little effort to build a model of school organization which centres political economy or social structure. Given the strong obstacles which are noted in several studies, this is a frustrating shortcoming of the accountability framework and casts a long shadow over its relevance to the real world.

Teacher Incentives

The third major thrust of the book is on teacher incentives as a way of improving schools. On page 144 is a graphic which depicts ten kinds of “teacher performance incentives”, out of which the authors choose to focus only on two: bonus pay and job stability. It is not explained why they choose to ignore giving teachers recognition and prestige or opportunities for mastery of their subjects and so on. Or even the incentives which salary differentials give or pensions and benefits can offer. These choices are difficult to understand unless they are posed as parts of an ideological whole: that which sees employees as being driven through strong applications of managerial power rather than as people who can choose to work for a better education. To the extent that individuals have minds and cultures of their own, perhaps it is feared that those may pull them in directions away from school functionality. It is the crudest incentive and penalty system which is being explored as a solution.

In studies conducted through this frame of ideas, contract teachers in India and elsewhere are considered to be more responsive to demands from the community and initially appear more cost-effective than regular teachers (p. 156). The authors do not respond to the serious questions which have been raised about the long-term sustainability of contractualization. Bruns et.al., however, do point out that contractual teachers seem to work only if the supervisory authorities – education bureaucracy or local communities – actually put teeth into their supervisory processes. If they are not adequately supervised or if poor learning levels have no repercussions for teachers, then contractualization as a process does not seem to work. There are no reliable studies available of how many contractual teachers actually get sacked specifically for poor learning levels.

Interestingly, the improvement in learning levels in developing countries stands in contrast to the most rigorous studies done in OECD countries. In the latter no difference appears to be made in school learning levels by using bonus pay methods. Perhaps this is because in the developing world schools are in such poor shape that simply getting teachers to report regularly to school leads to an improvement of conditions. Perhaps getting the next step of improvement calls for some other kind of approach. If a teacher does not know enough mathematics himself, there are sharp limits on how much students will learn even if the teacher starts coming regularly to school.

Alternatives to the Accountability Discourse

The book has many strengths and many weaknesses. An honest and meticulous narration has been done of results from the reviewed studies. The conclusions drawn from them have largely been parsimonious and cautious. The failures of efforts coming from an accountability framework have been recounted along with the successes. What is particularly praiseworthy is that the authors have also tried to ask why those efforts failed, albeit from the point of view of a rooted common sense. Unfortunately, the narrow range of the theoretical apparatus deployed by them often prevents the implications of the failures or the partial successes from becoming the basis of developing a revised and more comprehensive understanding.

An interesting aspect of the book is its repeatedly making the point that it speaks on the basis of “evidence” (this is mentioned in the subtitle, too) and thus impartially claims no more and no less than what the “evidence” says. There is an emphasis on the use of randomized research designs and a focus on identifying causality rather than just correlations in the various factors at play in the cited studies. At the same time there is a striking focus on only one set of claims for which evidence is sought. For instance, there seems to be only one way of encouraging teachers to perform better, that of giving them promotions or financial incentives. It is as if no other way of looking at teacher motivation, their identities, their cultures, professionalization, and so on had ever been proposed. The questions which guide the research designs then inevitably bracket out ideas and perspectives which pose competing descriptions of how schools work. What constitutes evidence thus seems to reinforce only the authors' own preferred mode of action. The rhetorics of empiricism and impartiality may strengthen the authors' confidence in their conclusions, but the large gaps in their theoretical models seem to belie that confidence.

The biggest shortcoming of the book, then, may be that it tends to see rigour only in terms of methodology and not in terms of an exposure to literature on the question or of

looking at different theoretical perspectives which seek to understand organizational functioning. Consider, for instance, the main model it presents of what drives human action. This is a version of principal-agent theory that sees organizations as being driven by the interests of principals, who are mainly concerned with somehow coercing their agents to abide by their will (pp.181-182). In passing, it is mentioned that other conceptions of human action also exist, which may see agents being driven by cultures, by professional dedication, respect and so on (p. 182). However, the text then carries on with its narrower model of action without enlightening us why it chooses to work with only one out of the contending theoretical models. It simply goes on to propose that parameters of predictability, controlability and bonus sizes are the key to getting an incentive-based system to work.

The technical-instrumental worldview and NPM obviously underly *Making Schools Work*. Interestingly, the text does not trouble to review or eliminate other threads even within NPM itself. In the version of principal-agent theory that it cites, for instance, there is little comparison with the kinds of debates which occurred within, say, public choice theory.

Christopher Hood (1991) in his classic paper which became a standard reference point for discussions of NPM accepts that there were three clusters of values through which administrative reforms could be formulated and judged, of which NPM was only one. These were sigma-type values, emphasizing lean and efficient organizations; theta-type values, which emphasized honesty and fairness; and lambda-type organizations, which prized robustness and resilience, respectively. These sometimes overlapped, but could also lead to quite different ways of dealing with the problems of organizing services and production. Without disparaging the work and effort put into *Making Schools Work*, one cannot help but also feel that a more useful way of doing an empirical examination of the claims of the accountability framework could have actually been to compare them with the consequences of following other kinds of frameworks.

Lois Recascino Wise (2002) has argued that several other kinds of normative systems continue to be present in the administration of various countries alongside NPM. Looking at the administrations of Norway, Sweden and the USA, she presents three normatively guided "drivers of change". These are: (1) the demands for greater social equity which lead to more inclusive hiring and promotion strategies; (2) demands for greater democratization and empowerment, which work towards greater participation of not just the clients of public services, but of different layers of the organization, too, moving towards flat hierarchies and greater employee involvement; and (3) demands for humanization, which see employees as well as clients as human beings with several dimensions of their existence and needs and try to make institutions places where people can grow and find fulfilment. These normative drivers have significantly affected the civil services of Scandinavian countries, but have also been making their presence felt in the USA. Each of them, arguably, leads public service reforms into somewhat different directions than a purely technical-instrumental approach would.

It may be relevant here to recall a hoary old contrast in the literature on organizations, which was spelt out by Tom Burns and G.M. Stalker as long ago as 1961 (Burns and Stalker, 1994). They pointed out that in certain situations, mechanistic organizations were more appropriate and in certain situations organic organizations worked better. Mechanistic organization designs were best suited for situations where functions were stable and the work was predictable. These relied on sharp divisions of labour, clear demarcations of roles and hierarchies, tight forms of control and regulation. The top was supposed to drive the

entire organization. In contrast, organic organization designs were more suited to complex situations where every day fresh challenges arose and no rule-book could be relied upon to define every problem and its solution. Here, flatter hierarchies worked better and actors relied upon intrinsic motivations and commitments far more than control from the top. A qualitatively different set of actions were required to cultivate organic organizations in comparison to mechanistic organizations. Studies of schools as organizations, from the pioneering work of Willard Waller (1932) onwards, indicate that the work of teaching is much closer to the organic end of the spectrum than the mechanistic. Teaching, at least good teaching, calls for sensitive teachers, getting into dialogues with students, looking for different ways of communicating, assessing and giving feedbacks to them.

Brian Rowan (1990) had portrayed the contending positions in the debates over school improvement as the contrast between a control and command approach and a commitment approach. In an exemplary article, Rowan had reviewed the evidences for and against the two and come to an interesting conclusion. He said that strong forms of both approaches appeared to be improving school functioning. It was the mild and mixed mode which tended to fall between two stools. *Making Schools Work* reports similar results, saying that strong forms of the accountability approach appear to work much better than weak forms. However, Rowan would have added that strong forms of building commitment in teachers, too, may be expected to have salutary results.

It is quite conceivable that the organizational techniques examined in the book will have an effect on improving school functioning. However, it may equally well be that the models excluded from their vision are what are crucial to building better schools. For instance, the processes of building commitments and cultures among teachers may be the preferred strategy to take. Or it may be that creating and strengthening organizations and structures that convey parents' and education professionals' voice to the state is something without which a ceiling will soon be hit. Or there may be intrinsic reasons to strengthen the growth of political organizations which can put pressure on the state to perform rather than relying only on administrative procedures like incentivization of teachers and so on. The book, for all its virtues, does not tell us either about these approaches to school organization or about possible combinations which could have been made.

Political Economy: The Elephant in the Classroom

Public administration has traditionally been averse to discussions of politics. It tries to portray a self-image of neutrality, serving all masters with equal commitment and professionalism. This is understandable as it keeps administrators relatively safe from political vendettas and witch-hunts. At the same time, the comparative history of education across the world tells us that the spread of education requires political will as much as it requires teachers' ability and desire to teach. The growth of an educational apparatus calls for a large amount of resources – both material and cultural - which are eventually given to it only through the political system and the decisions taken by it. Behind this process may stand different kinds of organizations which channelize ideologies, like political parties, or administrative machineries which engender confidence in or discredit particular strategies. Class politics, struggles over the membership of communities, castes and races and the ubiquitous presence of gender twist that process this way or that.

The denial of the political economy of education has been a persistent reluctance of the technically proficient administrator to acknowledge the presence of the elephant in the classroom. *Making Schools Work*, too, avoids looking it in the eye. Right at the end of the book there are two and a half pages dealing with the political economy of accountability (pp. 245-247). They, however, mostly talk only about the resistances offered to incentivization and so on by various interest groups and possible ways of overcoming them.

The distribution of power and the related political processes are actually at the heart of debates on schooling and the place of education in a democracy. The difficulties of technical-instrumental approaches with equality and justice have been a long standing grouse against them. Box et.al. (2001), for instance, argue that NPM by-passes a substantial democracy, emphasizing procedures over the substance of justice and equality. Its narrow approach can be counter-productive to its own aim of involving local communities and actually carries forth the separation of the community from administrative machineries. As an alternative, they recommend building participative administrations instead of merely efficient ones. This would imply a different approach to building institutions, for instance, setting up offices that support neighbourhood organizations instead of building a public relations office or making local problems the basis of building school infrastructure rather than distributing resources equally across administrative boundaries. Changing the education system of a country, then, necessarily needs to go beyond the education bureaucracy itself. The building of a healthier political economy may call for the cultivation of groups, parties and processes which reshape the ideologies and the structure of power. For many, who are deeply concerned with education, this is a troubling, but unfortunately inescapable truth.

To sum up, then, the basic limitation of the accountability approach, for all its virtues, as expressed in *Making Schools Work*, perhaps, is that it sees institutions in too narrow a manner. It is aligned too closely with knowledge traditions that come from a concern with controlling members of an institution so as to get them to follow the will of the master. However, there are also other ways of imagining the purposes of institutions. Who the master is may not be something which can be divorced from the question of whether the distribution of resources and cultures in a society is just. Thus, the structuring of institutions may itself be a way of furthering justice, which may be a different and sometimes contradictory goal from efficiency. Further, institutional life may also be an end in itself, with the quality of the lived experience of its members being an important consideration alongside the services being provided by that institution to society. Dehumanizing work processes may indeed work, when dehumanization is carried out to a high degree and through close surveillance and reward and punishment measures. However, the cultivation of humanity may also be a strong reason to search for and build other kinds of measures, which can also be a way of creating well functioning schools. Those employees, too, after all, are a part of the better kind of society which we seek to create.

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Book Reviews

ABDUL, Waheed (Editor) (2010): *Minority Education in India: Issues of Access, Equity and Inclusion*, Serials Publications, New Delhi, pp. XXIV+264, ISBN: 978-81-8337-348-2, Price ₹ 850/- (Hard Bound).

The book under notice is the outcome of a National Seminar on Minority Education in India organized by Centre for Promotion of Education and Cultural Advancement of Muslims of India, Aligarh Muslim University, Aligarh in March 2009. The book includes 22 papers organized in three sections: Dimensions of Exclusion, Success Stories of Minority Education and Strategies for Educational Inclusion. Besides, there is an Introduction contributed by the Editor, Aligarh Declaration 2009 and an Annexure 1: Report of Seminar Sessions it covers the gist of the papers presented in the seminar but not covered in the book. Muslims constitute 14 per cent of the country; they have been found most educationally backward community at the national level and their fate has not changed to date.

In the opening papers of part A, Manoj Kumar Jha and P.K. Shahjahan present a socio-economic survey of Mumbara, a town where 85 per cent of the residents are Muslims. The town lacks in civic amenities provided by local government as well as state department. Getting a Ration Card or a Voter's ID is yet another ordeal. Exclusion in political participation and engagement starts from not having their names in voters' list so a less number of people actively engage or take position in political arena. Silencing and othering of Muslims from public institutions and geographical segregation of habitat on the basis of religion represents some of the extreme stage of social exclusion and consequent hardening of boundaries between us and them. Next, Mohammad Akhtar Siddique opines that equality of educational opportunity demands creation of suitable conditions for access of education at different levels to Muslims who were left behind others in the past. Their poor status of education and employment has serious implications for national development. One measure may be in exercising protective discrimination in their favour by way of reserving spaces for them in educational institutions and employment. This needs to be accompanied by the community based initiative on a sound and sustained basis.

Nazrul Islam notes that Muslims constitute 25.25 per cent population of West Bengal but their representation in government service in the state is only 2.1 per cent. The most important reason for their backwardness in education is the lack of educational institutions in the areas where Muslims live. There was much demand for the establishment of a University in Murshidabad district, but, the then ruling party (CP or alliance) was never very serious about the educational problems of the Muslims of the state. Muslim concentrated districts are also victims of government neglect in the field of secondary and even primary level of education. It is observed that reservation for a community creates bad blood among members of the different communities. The government is responsible to a large extent in making Muslims a backward, deprived and marginalized community. Next, Sharif Qureshi

states that the non-access of Muslims to education is enhanced by non-availability of Urdu medium schools as well as Urdu teachers in government schools in minority habitations. Arzals constitute about 40 per cent of Indian Muslims, but their socio-economic condition is very poor and they need reservations facilities to improve their status. Thirdly, Sabita Hussain's study shows that majority of girls want to pursue education for earning a livelihood. However, the major obstacles are: religious reasons, economic obstacles, programmatic obstacles, social and cultural obstacles, and feeling of insecurity and discrimination. The study suggests that strong measures at the policy level are required for retaining Muslim girls in higher education by providing hostel facilities. Secondly, mind-set of the majority community and the prevailing prejudice of service providers have to be changed.

Anita Nuna's study indicates that the efforts of the state governments in increasing enrolment of Muslim girls has shown marginal progress except in Kerala and Karnataka. In Kerala, 6 multi-stream residential schools for girls have been opened under Area Intensive Scheme. There is a strong demand for such schools in other states. Moreover, most of the states had not taken school mapping or survey of educationally under-served groups/communities before implementation of the scheme. The study concludes that the scheme had not succeeded in achieving its goals. Next, Shaikh Sulaiman Karol laments that Muslims have only 2.3 per cent of children enrolled in primary schools in Goa state and only 1.2 per cent students appear for SSCE Board Examination. The main reason of the education backwardness of Muslims in the state is negligible number of Muslims managed institutions; and most of the Muslim students acquire their education in Urdu and face a lot of problem when they are enrolled in English medium secondary schools. However, the basic education in Goa is largely in the hands of private players and Muslim students do not have easy access to these schools because these are very costly.

SSA Jafri's study based on a survey of two districts of U.P. indicates that the economic hardship does not permit the Muslim population to avail the educational facilities even if these are available free of cost with mid-day meals and scholarship. Improving educational level among Muslims is possible only by raising family income. Muslim households are generally engaged in informal occupations and household industry where wages are low. There is a need to access micro-financing through Shilpkar Credit card. Next, Sudha Kumari writes about the various commissions and committees set up by government from time to time to enquire about the conditions of Muslims in India. These includes: Sir William Hunter Committee Report (1871), followed by Dr. Gopal Singh's Panel Report (1983), S. Vardarajan's Panel Report (1996), Sachar Committee's Report (2006) and Rang Nath Mishra's Commission Report. These Reports made recommendations for the uplift of the Muslims, but these have not been implemented. However, the government took some initiative in pursuance of Sachar Committee recommendations and Rang Nath Mishra's Commission. The former was concerned about the status of Muslims lower than dalits and latter recommended 15 per cent reservation for minorities, out of which 10 per cent should be given to Muslims (Hindustan, November 13, 2011).

In the opening papers of Part B, Maqbool Ahmed writes about the setting up of Al-Ameen Education Society by Dr. Humtaz Ahmed Khan and his associates in Bangalore. Under the stewardship of the society about the 200 schools and colleges were set up all across the districts of old Mysore state. Government also created a special reservation category within most backward with 4 per cent seats for the Muslim Community 1994, which has benefited

the community. Muslims in the state today run about the 40 degree colleges and a good number of professional colleges. Recently a Medical University was set up by a Muslim, namely, Yanepoya University in Mangalore. The general literacy conditions have improved and the enrolment rate among Muslims is above 80 per cent. It is felt that the higher education is still a deficient area. The need for liberal entry into government jobs is being felt. Another area of concern is high drop-out rate at school and there is a need to arrest it. On the whole equitable access to education in Karnataka has been exemplary and is worthy of emulation by other states.

In Andhra Pradesh, Yousuf Qureshi points out that minority communities are able to take full advantages of the growing opportunities in the field of education because of the efforts of the state government in improving accessibility to education by providing incentives like scholarships, fee reimbursement and hostel facility, apart from 4 per cent reservation to backward classes among Muslims. There is a suggestion to set up a National Monitoring Committee to see the implementation of minority education programmes. Next, Mohd. Mazharuddin Khan writes about the Muslim managed educational institutions in and around Hyderabad. Since 1980s many prosperous Muslims have opened schools, colleges and professional institutions. These institutions helped in the development of education among Muslims. Muslim education societies such as Shadan, Deccan and MESCO have established colleges of paramedical courses. The proactive approach of Muslim elites led to a considerable improvement in the education status of the Muslims of Hyderabad.

C.I. Abdul Rahiman writes that in Kerala sanction was accorded for establishing self-financing Engineering colleges under the auspicious of Muslim Education Society in 1994. Today many colleges and professional institutions run by Muslims are functioning. The need of the hour is the establishment of excellent institutions to provide quality education to minority students so as to enable them to achieve their goals and to excel in ever-changing competitive environment. The author alleges that affiliation is being denied by universities for new courses and institutions. Next, M.A. Hameed writes about the activities of Muslim Association Trivendrum. These include welfare institutions and educational institutions. It is proposed to initiate nursery to professional institutions to cater to the need of the developing economy of the nation. The message from the Muslim Association is – Form self-help groups. Let not the lack of money deter you from the noble objectives. Joint efforts and group effort will make any scheme work successfully. In his paper, K.P. Faisal points out that one major problem is related to Muslims' attitude towards education. There are two assertions; the first comes from the traditional educational centres, it asserts that whatever system they have is self-sufficient and self-reliant, and so it should not be disturbed by government interference or any other agencies. The second assertion comes from modern Muslim elite. They observe that the root cause of educational backwardness is their obsession with traditional/religious education. They suggest that the Madarsas should be modernized and Muslim children should have more access to secular education. However, the reluctance to modern education was finally overcome in 1950s when the community accepted the state programme of Universal school education at the lower level. At the higher education level, Muslim education system was mainly centred on the teaching and learning of Arabic language along with other usual courses of study.

Hajee S. Mohammed writes about the activities of Melivisharam Muslim Education society (MMEs) set up in 1926 at Melivisharam, Vellore. It established several educational

institutions from primary to college level both for boys and girls. The MMES aims at an education that is vocational and humanistic. Such an education for women is a blith some blend of mundane and spiritual needs. Next, S. Sumayaa observes that Thassinna Beevi Abdul Kadar College for women in Kilakarai, Ramanathapuram has radically transformed the scene of women's education in the backward region of the state. The college offers courses keeping in view the importance of science and technology in modern times. The college offers courses in a distance mode to enable students to acquire degree/diploma through various open universities. Besides Seethakathi Trust has established Seethakathi NGO in 2002. It has contributed to promote literacy, health and hygiene in rural areas. The Trust believes that establishment and management of quality institutions require deep commitment and concerted effort.

In the opening paper of Part C, Mani Jacob suggests the need to enact a national legislation on the meaning and implications of Article 30(i) of the Constitution. This will remove the present need for frequent litigation on every issue related to the minority rights. A case is made to ensure 75 per cent seats for minority students in all courses in all minority institutions. They should be allowed to conduct their own entrance tests for technical courses. Next, Nafees Ahmed stresses the need of introducing modern education in Madarasas and teaching of religious Islamic education in minority educational institutions. There is an urgent need to train Urdu teachers and administrators. It is desirable to teach Urdu to students and to make school education strong.

Phiroz A. Poonawalla makes a case for entrepreneurial education at all levels and proposes that a blueprint for entrepreneurial education may be prepared. The disadvantaged youths need to initiate or expand their own business in manufacturing and service sectors and provide them loans. Next, V.K. Beeran pleads that government takes a decision to declare questions as a whole as a socially and economically backward class. The weaker section of the Muslims may be notified as a ST/SC group. Moreover, there is a need to mandating the Central University Act that allows the affiliation of minority educational institution to a central university. In the last paper Abdul Waheed suggests that partnership between the government, the community and the private sector may be quite useful to deal with the problems faced by Muslims. Their great relative deprivation call for a significant policy shift in the recognition of the problem and devising corrective measures as well as allocation of resources. It is suggested that Muslims should have greater access to vocational education for enabling them to earn their livelihood.

In sum, the book highlights the plight of the Muslim community and the need to take measures to improve their status educationally, socially and economically. Apart from government support, the community has to take initiative in this direction by changing the attitude of the masses towards education and to make education relevant to their needs and aspirations. Apart from establishing minority institutions, the community should avail the facilities of the existing institutions at various levels.

BAGGLEY, Jon and Tian BELAWATI (2010): *Distance Education Technologies in Asia*, jointly published by Sage Publications India Pvt Ltd, New Delhi and International Development Research Centre, Canada, pp, xxxv+270

The Distance Education (DE) has become now a striking feature to provide broad base access to those who, by circumstances, are constrained to further their professional career through face-to-face mode of regular education. This trend was set in motion by the developed economies of North America and European countries but now is accepted as a global policy in other countries, too. It is an educational policy to provide access to higher education due to the widely used ICT supported and delivered mechanism for educational material and professional skills.

This book review covers the case studies of the current status of DE in Asian countries. The book provides a progress overview of distance education in 11 Asian countries. Canadas' International Development Research Centre (IDRC) has taken a Pan-Asia perspective of distance and open resource access. Contributors to this volume through 12 chapters have presented in a coherent way the DE system of education by evaluating the impact of various distance education technologies being used in Asian countries. Use of distance education technologies has been examined in respect of its various formats and platforms covering period between 2005 and 2008. From 2005-2008, as many as 24 Pan-Asia Network Distance Open Research Access (PANdora) team members from 19 institutions in 11 Asian countries have collaborated on various sub-projects.

The book reports the use of new technologies — ICT — supported and delivered through Internet, mobile technologies, use of Short Messages Service (SMS) in Mongolia and the Philippines. An interesting initiative concerns the evaluation of various Learning Management Systems (LMS) developed, using Open - Source - Software (OSS) with a view to determining which of them best suits. It is reported that out of eight OSS learning management packages, Moodle 1.5 was superior in terms of ease of adoption, cost of ownership and openness which could be put to good uses in higher education in Asia.

Asian countries are struggling to provide more resources to higher education, as a policy perspective. It is desirable to go in for ICT-based DE methods. A paradigm shift is to be emphasized from teacher-centered to learner-centered methods which provides better opportunities to learners for flexible process of learning through ICT-based support and delivery system of learning materials. There is a clear scope of more extensive use of Internet, radio, TV media which are now being provided extensively at a fast pace in Asian countries.

The book highlights the scope and limitations of E-learning in all the Asian countries citing the case studies done by the PANdora project team. Citing E-learning scenario in China, the book provides evidence that modern information and communication technologies (ICTs) are being widely applied in Chinese education. DE system has expanded fast since 2000. DE is becoming not only a major lifelong education option for full time working adults, but also a key approach to greatly help to reform the traditional pedagogies of class teaching. CDs, Radio, TV, ICT-based interactive application format has expanded higher education enrolment in China. China's K-12 Online schools (200 Nos.) have the most important form of DE in Chinese primary and middle schools (p.91-92). It is recommended that an ideal goal of DE research in China will be to develop an integrated teaching

design to suit all students and resources capable of providing effective, independent and customized learning (p.109).

Similarly, citing the case of popularity of Internet using E-learning, India is going ahead. Today, easy, reliable and access cyber cafes across the nation (even in small towns such as Nathdwara in Rajasthan, Nadiad in Gujarat and Nanded in Maharashtra) have made online learning a reality (p.26).

In India, the university of Delhi established the Directorate of Correspondence Courses (later on renamed as the School of Correspondence Courses and Continuing Education, and subsequently as the School of Open Learning) to offer the first correspondence courses at the university level in India.

In 1966, the National Education Commission suggested that correspondence courses should be expanded to include courses in science and technology. Between 1967 and 1971 as the correspondence courses were being established in Indian universities, the government sent three delegations to the USSR to study the Soviet system of evening and correspondence tuition. In 1972, a recommendation by the Standing Committee on Part-Time Education and Correspondence Courses was accepted to establish a National Institute of Correspondence Courses (NICC). In 1982, India's first Open University, the Andhra Pradesh Open University (APOU), renamed in 1991 as the Dr. B.R. Ambedkar Open University (BRAOU) was established by the State Government of Andhra Pradesh. In 1985, the Indira Gandhi National Open University (IGNOU) was established as a means to democratize and increase access to higher education for larger sections of the population. By 2007, as many as 15 open universities and 129 dual-mode university DE institutes/Centres existed in the country, offering over 500 academic programmes with over 4,000 courses to more than 2.8 million students, taught by 125,000 tutors and counselors through a network of 5,000 study centres in over 175 regional centres. IGNOU, as the apex body in Indian distance education, has launched a Convergence Scheme to encourage substantially increased enrolments by offering ODL programmes and dual degree programmes in partnership with conventional education systems (p.13).

While evaluating the DE system in Cambodia, Lao Peoples 'Democratic Republic and Vietnam, it is observed that these countries share a deep need for DE, but lack a general public understanding of its validity (p.146). All these three countries viz., Cambodia, Lao PDR and Vietnam place a high priority; however, these priorities are on vocational training and the education of the remote communities (p.161). A success story in the use of M-learning i.e Mobile-Learning is learning through SMS. Philippines is considered as the "texting capital of the world" (p.193) where 200 million text messages are sent and received every day. This technology can also be utilized on a large scale in other countries of Asia.

Faced by serious disparities of educational opportunity and access in Asia's urban and rural sectors, ICT-based DE, combined with traditional educational methods is beginning to provide significant enhancements (pp. 31-32).

However, the book recommends: "the most promising ICTs' cannot improve teaching and learning automatically but require high-quality methodologies. Increased attention should be paid to the instructional design of DE courses and learning support" (pp. 126).

It further recommends, that Asian DE institutions should develop appropriate cross-border standards for sharing DE methods and materials and for increasing the international acceptance of DE in general (p.126).

ICT-based DE has great potential for resource sharing for delivering vocational and degree qualifications to rural areas and disadvantaged populations and for enhancing educational equity in Asian countries. Applying ISO 9000 methods can improve the quality assurance of DE institutions and can help to develop a more efficient industrialized education model than is possible in traditional education.

In nutshell, the book provides sufficient evidence of slow but steady progress of ICT-based application in E-learning in addition to the second generation use of CDs' radio, TV and video-conferencing as a student-support system. However, students still repose their confidence on print materials which has been a legacy of the traditional way of learning and methods of teaching in Asian countries. This will continue for the time being till these countries are in a position to allocate more resources to DE in the education sector.

90/31A, II Floor (Rear Portion)
Malvia Nagar, New Delhi-110017

V.P. Garg

RAVITECH, Diane (2011): *The Death and Life of the Great American School System—How Testing and Choice are Undermining Education?* (Revised and Expanded Edition). Basic Books, New York. ISBN: 978-0-465-025572. Pages 334.

The book under review is an excellent exposition to the trajectory of reforms in American school system. As a historian of education, the author has perceptively followed the developments in the American school system over the last five decades. On the basis of detailed historical accounts of debate provided by the author on reforms, three dominant streams representing three different phases can be easily discerned. The three phases of debate on reforming the American education system represent three different approaches and worldviews.

The school reform movements of the late 1960s and early 1970s came up with radical proposals. Some of the proposals were rooted in the concerns articulated in the civil rights movements. Racial equity in the classroom and respect for cultural diversity occupied one of the central concerns of these articulations. 'Tear the walls between the classrooms, free the children, free the schools, abolish all rules and requirements, get rid of graduation requirements, college entrance requirements, grades, tests, and textbooks, down with canon' were some of the other popular ideas that defined the agenda of radical reform movements of the period.

The release of a major report of the National Commission on Excellence in Education entitled as *A Nation at Risk* in 1983 marks the second important shift in the agenda of educational reform. The report conclusively argued that the educational standards in the country had declined over the years. It called for qualitative improvement in the educational standards. The main focus of the report revolved around curriculum and quality in education at all levels. But the most radical shift in the focus and strategy of educational reforms comes with the passage of the Federal Legislation entitled as *No Child Left Behind (NCLB)* in 2001.

The major part of the book under review and its arguments are centered around interrogation of the merit of the NCLB Act. The NCLB was a culmination of agenda of reform

pursued during the 1990s. Both the context and intent of the NCLB stand exactly opposite the relevance and merit of the public school system. The author rightly points out the 'NCLB introduced new definition of school reforms characterized as accountability, high-stakes testing, data-driven decision making, choice, charter schools, privatization, deregulation, merit pay and competition among schools'. Interestingly, both the democrats and republicans converged together on a common agenda of reforms in the American school system articulated in the NCLB. The book presents an ardent critique of the NCLB. It unequivocally argues that the testing and choice have undermined the basic objectives of education.

As per the provision of NCLB all public schools receiving federal funding are required to test all students in grade three through eight annually and one in high school in reading and mathematics and desegregate their scores by race, ethnicity, low-income status, disability status, and limited English proficiency. Desegregation of scores is intended to monitor the progress of each group separately. All the states have to choose their own test and adopt three performance levels-basic, proficient and advanced. The Act stipulated 100% proficiency of the students by the year 2013-2014. All schools and school districts have to make adequate yearly progress towards every sub-group. Though the provisions apparently seemed progressive and reasonable, they proved to be the mechanism of killing the public school system. The experiences over the years have shown that the provisions of the Act have been used as a pretext to close down the public school and for giving way to charter schools and privately managed schools.

The agenda of reforms in American school education articulated through the NCLB Act of 2001 has proved consequential in many respects. Most notably among them is the adverse impact of the NCLB on the autonomy of the schools, local government and the state. The federal legislation directly intervenes in the arena of competence of the states. The financial incentives in the form of federal funding to the states for implementing the provisions of the NCLB have provided opportunity to the federal government to get into the affairs of the states. This marks a major departure in the jurisdictional competence. Jurisdictional competence of the state and local government is transgressed in a very subtle form. The debate on centralization-decentralization during 1960s had recognized the merits of the schools in the neighbourhood, controlled by the local government. These were considered as the closest to the communities. The Act undermines the inherent merit of the same

The provisions of the NCLB in their ultimate analysis pave way for private schooling. It emerges from the analysis of the historical account of the author that the debate on reforms in the American education system in the 1990s onwards has been moulded in such a way that has acted as catalytic factor for promoting private interest and funding in school education. The trend can be traced back to the years of the release of the *A Nation at Risk*. Though the report genuinely raised concern about the state of American education, it prepared the ground for initiating a new debate on educational reforms in the school system. The alarming situation portrayed in the report acted as a catalytic factor for thinking beyond the experiences of the past. It may be recalled that the state funded neighbourhood public schools had provided opportunity to the excluded groups to take advantage of the public school system and get education despite their limited means. Testing and scoring measures of the NCLB have forced closure of many schools or they are on the verge of closure since most of the public schools are not in a position to meet the stringent requirement of 100%

proficiency. The closure of public schools is sure to affect the prospect of education for the disadvantaged groups. The charter schools and privately managed schools have their own logic of market. The market does not discriminate if you have competitive purchasing power, but is very unlikely to protect the weak and disadvantaged.

Ravitech rightly points out: "our commitment to provide universal, free public education has a crucial element in the successful assimilation of millions of immigrants and in the ability of generations of Americans to improve their lives. It is unlikely that the United States of America would have emerged as a world leader had it left the development of education to the whim and will of the free market" (p.241). She goes one step further and situates her argument in the following way, "... the market...is not the appropriate mechanism to supply services that should be distributed equally to people in every neighbourhood in every city and town in the nation without regard to their ability to pay or their political power. The market is not the right mechanism to supply police protection or fire protection, nor is it the right mechanism to supply public education."(p. 241).

It needs to be re-emphasized here that the progressive reform movements of the past had put premium on the merits of the public school system. The public school system opened up possibilities of including the disadvantaged groups. This obviously provided ground for racial equity and better integration of racial groups. The entire gamut of arguments advanced in the book establishes the point that the agenda of school reforms had grossly neglected the differential needs of the disadvantaged groups. The provisions of the NCLB are unable to address the specific concerns of these groups.

But more than the apparent damage done to the public school system, the reforms have done enormous damage to the future American generation. The curriculum and content of education could be identified as the third major victim of the reform measure. Ravitech forcefully argues that the reforms in American school system have transformed the basic content of education which, in turn, has defeated the very purpose of education. She forcefully argues that the NCLB has "created a national education policy that neglected the central purpose of education: to shape good human being, good citizens, people of good character with the knowledge and skills to make their way in the world and to join with others to sustain and improve our democracy...The broad and humanistic goals of education ought not be reduced to scores on multiple-choice tests of basic skills. Doing so narrows the purposes of education and diminishes the professional responsibilities of teachers and principals" (p.245).

Education, she maintains, is not merely about reading and mathematics, which is being advocated and promoted through a series of reforms. She argues: "The policies we are following today are unlikely to improve our schools. Indeed, much of what policymakers now demand will very likely make the schools less effective and may further degrade the intellectual capacity of our citizenry. The school is surely to be failures if students graduate knowing how to choose the right option from four bubbles on a multiple choice test, but unprepared to lead fulfilling lives, to be responsible citizens, and to make good choices for themselves, their families, and our society" (p. 224)

She further maintains: "Education is the key to developing human capital. The nature of our education system-whether mediocre or excellent-will influence society far into the future. It will affect not only our economy, but also our civil and cultural life. A democratic society cannot long sustain itself if its citizens are uninformed and indifferent about its

history, its government and the working of its economy. Nor can it prosper if it neglects to educate children in the principles of science, technology, geography, literature and the arts. The great challenge to our generation is to create a renaissance in education, one that goes well beyond the basic skills that have recently been the singular focus of federal activity, a renaissance that seeks to teach the best that has been thought and known and done in every field of endeavour" (pp. 223-224).

The philosophical statement of Ravitech indicates both the state of American education and challenges of preparing the future generation of well informed and culturally sensitive citizen. Ravitech's interrogation of the agenda of reforming the American school system is informed not merely by deep ideological underpinnings of a public school system but is more strongly rooted in the substantive logic of the education system.

The foregoing exposition clearly demonstrates that the many measures of reforms in the American school system have acted negatively and this is the context that leads Ravitech to interrogate the reform measures. Her major critiques revolve around the content of the NCLB and its adverse impact on the public school system. NCLB was considered as a panacea to all the ills of American school system. However, the way the Act has unfolded over the years tells altogether a different story. Instead of creating a more positive environment of school education, it has mechanically interpreted the purpose of education. The author demonstrates as to how the agenda of reform, especially the NCLB, has adversely affected the quality of education in American schools. The idea of standardized testing, score, school choice and accountability as measures of excellence in education has done more harm than improving the quality of education. In the garb of reforms, private schools have been favoured at the cost of public school education.

The book compels us to rethink about school education, in particular, and about the purpose of education, in general. It raises certain fundamental issues about school education that go beyond the exclusive American context. Most of the issues raised in the book are of seminal importance and have parallels in the Indian situation. The developments during the last two decades in the Indian education scene have alarming approximations of the American NCLB. Though equity and inclusion are being projected as the mantras of educational policy and planning, the ground realities stand sharply opposite to them. If we take even the elementary education, the mere figures of near universal education is elusive. The quality of education is virtually absent. Nearly twenty per cent of the total schools termed as private cater the requirements of only those who can afford them.

Market driven emphasis on basic skills, technical and professional education over the past two decades has adversely affected the quality enrolment in the streams of pure sciences, social sciences and humanities; and the liberal arts in the Indian higher education. The emphasis on market driven courses may create a situation of void in the long run. The arguments advanced in favour of privatization and withdrawal of state from higher education undermines the merits of governmental support to education in India. The point that emerges here invites serious attention and intervention if India can learn lesson from the reform agenda of the US.

The richness of the book lies in its relevance in other cases also. The lucid style of writing of the book is one of the most important merits of the book. Many serious issues have been presented in such a way that never appears as burden of reading. The book is

relevant for everyone interested in American school system in particular and critical issues of educational reforms in general. It is worth collection.

Department of Educational Policy, NUEPA
New Delhi-110016

Kumar Suresh
profkumarsuresh@gmail.com

JOHNSON, David (2010): *Politics, Modernisation and Educational Reform in Russia: From Past to Present*, Edited by, Oxford Studies in Comparative Education, Symposium Books.

The world's latest trend in globalization, the development of the knowledge economy, provides impetus among educators and policy makers to determine what role the State has to play in this new environment. Despite the current acceptance and/or skepticism toward today's globalization trajectory, its impetus provides a wealth of exploration to educators interested in comparative and international education. Using a comparative educational framework, David Johnson and his co-authors seek to highlight the role of the nation-state in the development of education, culture and worldview in Russia and discuss what influence this might have on the future of Russian education reform and development.

Beginning with the first chapter by David Johnson, *Educational Reform in Russia: Culture Context and Worldview*, the underlying theme focuses on what theoretical frameworks or methodological approaches might be adopted for making educational comparisons across worldview, cultures or nations. The authors argue that emphases depend on the political systems in which they develop, and that they can be identified at the "...confluence of political and scientific thought; and hence, in looking to educational 'developments' in Russia, the relationship between international political relations and educational ideas becomes an important unit of analysis" (p. 7).

The second chapter by Robert Harris, *Society and the Individual: State and Private Education in Russia during the 19th and 20th Centuries*, delves into the nature and growth of the education system under the Tsars, culminating in events leading to the establishment of a Soviet State. His keen insight into the nature and conflict between Russian ideas of *vospitanie* (upbringing, moral and ethical education) and *obrazovanie* (practical education) highlights the contrasts of educational ideals in the 1800s. Harris documents the rise of an elite intelligentsia, formed primarily in private literary circles external to the educational system of the time. In an effort to reform and improve the educational system in an effort to modernize the country, the push towards university education for even the elite led to the foundations of dissent found in the late 1800s and culminating in the collapse of the Tsarist history. Once *raznochintsy* (the masses) were allowed access to higher education, they were free to mingle with the children of the elite *intelligentsia*, have broader access to Western liberal and humanitarian thought, and incorporate these ideals with the worries and goals of their class. The more access this new class had to Western thought, the more it was able to translate this knowledge into action against the regime. The tension continued under the Soviets, and Harris' discussion provides a solid foundation for understanding the tensions current in discussion of educational reform in today's Russia.

Harris relies on a description of educational thought during this time period that parallels the development of political thought and State actions. The emphasis on discussing

educational development against the backdrop of State policies and goals demonstrates the inability to separate educational development in Russia from political development. For those students of Russia and education looking at these topics from a state-centered approach, this chapter is immensely useful.

Margarita Pavlova continues the discussion of educational development in Russia with her chapter, *The Modernization of Education in Russia: Culture and Markets*. The chapter offers an interesting discussion of today's bipolarity of Russian educational goals [socialization into the national culture (cultural distinctive Slavophiles) versus preparation for living and working in market-oriented economy (rationalist Westernizers)], and how this bipolarity influences Russia's attempts at education reform within the context of economic and market development. On the one hand, there is a very strong sense of nationalism among many educators that the Soviet education system is not irrelevant and that there should still be an influence on breadth of knowledge and educating the citizen. Voices from the other camp highlight the need for the education system to teach people in line with market values and needs, thus, blurring traditional education and vocational training.

Pavlova argues that ultimately there was a compromise through a hybrid structure that attempts to include both local and global, both breadth and depth of knowledge acquisition. There was a shift from mastery of knowledge in terms of science to mastery in terms of culture, the "...development of the 'cultural' person who would potentially be able to solve problems in different fields. Thus, the potential to solve problems is considered a major goal of education" (p. 62). This incorporation of a cultural element has influenced how Russia interprets the new concept of "competencies" in education. Unlike in Europe, where the concept of competencies originated with the Bologna Process and included an element of vocationalization, Russian competencies emphasize specific knowledge. This is felt to be more in keeping with Russia's educational tradition and activity-based approach to learning in the schools.

The book then turns to the issue of *Democratization of Higher Education* with Judith Marquand's chapter. This chapter begins with the theoretical underpinnings of the democratization of education, and then continues on to discuss several examples of TEMPIS TACIS-supported programmes implemented in Russian Siberia from the late 1990s through mid-2000s. The chapter seeks to identify where democratization stands currently, its effects on education at the higher education level, and how Western-style programmes might impact the democratization process. The chapter concludes that it is possible to introduce elements of democratization in Russian higher education, but the evidence from the discussion of the programmes implemented demonstrates that it is difficult at all but the best universities, particularly when longevity is taken into consideration. This reviewer would have enjoyed the inclusion of a more in-depth discussion of the issue of longevity when it comes to externally-sponsored programmes, and the concomitant influence of local, national and institutional politics on the success of such programmes. Similarly, and this might be a task for future research, but it would be interesting to explore what hinders the development of democratization programmes being developed endogenously.

The book continues with *Restructuring the Governance and Management Structures of Higher Education in Russia* by Fedotova and Chigisheva. This chapter discusses how Russian history impacts the State and society's ability to restructure higher education by outlining the historical development of higher education and delving specifically into the development of governance structures in 19th and 20th centuries. According to the authors, these

structures characterize a dual system of higher education whereby governance structures are centrally adopted yet nationally implemented.

This duality highlights the issues of university autonomy throughout the history of higher education in Russia: waves of autonomy followed by strict recentralization throughout 1800s, closely following political and social upheavals. "Government policy had two main directions: protective-conservative and democratic. The situation in Russian universities of the twentieth century demonstrated fully the inefficiency of attempts to manage the process of education and science using bureaucratic methods and subordinating teaching to reactionary political goals" (p. 85).

According to the authors, the Russian State's current aim is to upgrade higher education in an effort to integrate into the European higher education arena. To do so effectively requires the encouragement of knowledge acquisition on the part of students. Yet the authors argue that the post-Soviet growth in private and fee-based programme in public institutions is hindering these efforts. The chapter continues with a discussion of restructuring possibilities (the creation of new institutions of higher education, mergers of redundant institutions, and the reorganization of existing institutions); needed changes to education content and new 3rd generation standards (including the concept of competencies); and the problem of financing institutions (fund-raising impediments, institutional structure, needed changes to institutional boards of management). This reviewer missed the inclusion in this interesting discussion of the State's creation of Federal Universities and National Research Universities. These efforts are a direct culmination of higher education reform over the past 10 years and have a direct bearing on the trajectory of the system of Russian higher education.

The issue of vocational education is of great interest to Russia as it tries to pursue a 21st century education strategy. Charles Walker addresses this in *Classed and Gendered 'Learning Careers': Transitions from Vocational to HE in Russia*. The chapter presents results from longitudinal surveys conducted with final-year students, college administrators, and local employment officials in Ulyanovsk Oblast. According to the results, vocational training in Russia still maintains a traditional labor-market focus instead of a focus on learning outcomes. However, because of a drop in enrollment numbers due to demographic decline and poor labor market prospects from people with a vocational degree only, there has necessarily been a rise in the transition rates from vocational to traditional higher education institutions. Russian educators hope to change vocational education from being a final stop on the learning journey and instead create a bridge to further learning in institutions of higher education.

Walker explains that despite the fact that gender and class barriers are deeply embedded in the structure of the vocational system, one crucial aspect of vocational education is that it serves to rebuild learner identities after bad experiences in secondary school. Importantly, both class and gender affect students' abilities to pursue higher education after receiving vocational degrees: after competing a vocational degree, many students realize that career possibilities are limited by availability and pay; there are significant financial barriers to pursuing higher education degrees; male students are constrained by military service requirements; female students find fewer links between vocational and higher education (legacy of 'female' disciplines). The result is that male students are less likely to return to higher education after their time in the military; and female students have a harder time finding paths into higher education and are more likely

to choose dubious branch campuses or private institutions. With the changing nature of the global economy, these issues are of critical importance to the State as it tries to keep a high proportion of college-aged students in the educational system against a backdrop of demographic decline.

In *The Unified National Test for Student Admission to HE in Russia: a Pillar of Modernization*, Elena Minina presents her findings from a case study conducted in Russian language department in a regional university. She conducted interviews with faculty in an effort to ease out the arguments of both opponents and supporters of the new UNT. According to Minina, opponents of the UNT associated the examination with a decline in the ability of students to use the Russian language. Although the case study was small, it is a good representation of the larger argument that is currently taking place in Russia.

The core issue appeared to be the overall reliability of the UNT as an effective assessment tool; and the possible negative impact it is having on re-shaping school curriculum and pedagogical techniques. Secondary was the UNT's ability to improve and equalize university admission procedures and to combat admission malpractices. But it is rather like the chicken-and-the-egg conundrum: has the UNT created these problems, or only served to highlight these issues? The chapter ends with a suggestion for further research on how the perceptions of faculty members with regard to the UNT and educational reform influence their professional behaviour on admission committees and as private tutors.

How Meaningful is the Policy of Free School Choice in the Modernisation of Education in Russia? This is the issue tackled in Andrea Laczik's chapter, which explores parental perspectives in terms of choosing primary schools – What information did parents gather to help in the decision making process? What issues did they consider? The results are from a qualitative, multiple-case-study design of three non-selective public schools in Perm. The chapter begins by describing the pedagogy and school structure under Soviets and through 1990s and early 2000s to give background on how school choice has developed in contemporary Russia, and how the process of choice has led to school diversification and decentralization.

The case study shows that parents use a range of sources to gather information. Given the dearth of national ranking information, as well as lack of local brochures and other information, parents had to be creative. All parents used their social networks, found educational professionals through their personal networks to consult. Very few consulted local education authorities for information. Ultimately, parents used their personal convictions on education, geographical location, and personal financial constraints as their main motivating factors for school choice. Locality was particularly important (included proximity and safety issues). And there seemed to be more emphasis placed on a child's social and emotional wellbeing than on academics per se, at least for younger children.

The book concludes with James Muckle's chapter, *Concepts of Education in Russia: from Past to Present*. This chapter describes the state of Russian education at the time of the dissolution of the Soviet Union, and then poses a series of question to determine how many of these features survive in present time, and how many assumptions from that period are still alive and well today. This discussion is interesting because of its proposed assumptions about pedagogy, curriculum (science vs. humanities), learner-centered vs. teacher-centered found after the dissolution of the Soviet Union, and impacts the current trends influencing what Russian education should be today (influenced by Russian orthodoxy? Commerce?).

The chapter concludes with survey results indicating that there is a strong belief among the population that the State has a role to play in directing the goals of education.

In sum, the book *Politics, Modernisation and Education Reform in Russia* provides a well-informed historical and contemporary overview of the state of education in that country across a spectrum of issues. The book also makes a strong case for studying education development and reform against the backdrop of State involvement. There are further areas of research that are suggested by this book: the factors that hinder the growth of endogenous democratization programmes at institutions of higher education; how perceptions of faculty members with regard to the UNT and greater educational reform influence their professional behaviour on admission committees; and, the development of the Federal and National Research universities as part of the State's higher educational reform efforts.

2026 , Santa Cruz Avenue, Menlo Park
CA 94025, USA

Katherine Kuhns
katherine.kuhns@gmail.com

WALTER W. McMahon (Ed.): *Education and Development: Major Themes in Education*, London and New York: Routledge, 2012, (Hard cover) ISBN: 978-0-415-58279-7 (set of four volumes), pages: 623+435+352+363+index

The relationship between education and development has been one of the most important areas that attracted the attention of the economists, during the last half a century or more, particularly since the human investment in revolution in economic thought created by Theodore W Schultz in 1960. Starting with examination of the relationship between education and somewhat narrowly defined economic growth, economists of education have expanded their work to cover various dimensions of development including health, democracy, human rights, political development, crime, economic well-being and happiness and how education has influenced these dimensions. Studies on education and development have indeed grown multi-fold in their scope, in quality and rigour and in numbers.

Walter McMahon, who himself has made very significant contributions to the area of Economics of Education, has made great efforts in putting together some of the best articles on these aspects in a massive set of four volumes: Education and Economic Growth (Volume I), Education and Development (Volume II), The Dynamics of Education and Development (Volume III), and Education, Policy and Finance (Volume IV). In all, the set of about 1800 pages includes 72 articles published during the last fifty years – starting with Theodore Schultz's "Investment in Human Capital" (1961) to McMahon's article on "Why Policies Matter?" (2010). As the title of the collection suggests, the set covers many major themes in education.

The relationship between education and earnings thereby economic growth has been the main foundation on which Economics of Education has grown. Volume I concentrates on this, focusing not only on neoclassical growth models with human capital, but also more on more recent studies on endogenous growth theory and related aspects. Externalities associated with education are a legion. A majority of articles in Volume II focus on social benefits, non-market benefits, civic engagement and democracy, etc. McMahon also shows in an important article, how a complete model can be built and how social benefits can be

measured. Volume III addresses issues relating to dynamics of endogenous development, including technological diffusion and indirect effects of education. Policy issues, including specifically financing, occupy the content of Volume IV. The collection covers aspects such as universal primary education, inequalities, market failures, financing, and political economy of development.

The set also includes studies conducted on various countries and regions—South Asia, East Asia, Sub-Saharan Africa, USA, UK, other OECD countries etc. Articles in the compendium are drawn from various published and several unpublished sources. All the authors are established scholars, some with pioneering studies, including T.W. Schultz, Gary Becker, Paul Romer, Robert Lucas, Richard Easterlin, William Baumol, George Psacharopoulos, Jere Behrman, Mark Rosenweig, Richard Layard, Henry Levin, Edmund Phelps, John Knight, Christopher Colclough, Paul Glewwe, and many others, apart from Walter McMahon himself.

Rich with thorough discussions on conceptual, theoretical and methodological issues as well as empirical analyses, the grand compendium will be of immense value to students, researchers and other development specialists interested in matters relating to education.

Department of Educational Finance, NUEPA
New Delhi - 110016

Jandhyala B G Tilak
jtilak@nuepa.org

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National University of Educational
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17-B, Sri Aurobindo Marg
New Delhi 110016

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Telephone : 022-28493723;	Fax : 091-022-28493724;	email : isae@vsnl.com ; isae@bom7.vsnl.net.in
website: www.isaeindia.org		