Journal of Educational Planning and Administration

Volume XXII Number 2 April 2008

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

ISSN 0971-3859

Annual Subscription

	Within India	*Outside India* (By Airmail)
Individuals	Rs. 150	US $ 60
Institutions	Rs. 350	US $ 85

Annual Subscription commences with *January* and ends with *October* every year.

Advertisement Tariff (For one issue)

Full Page	Rs. 2000	US $ 100
Half Page	Rs. 1100	US $ 55

Bank draft may be sent to the Deputy Publication Officer, NUEPA in the name of the *National University of Educational Planning and Administration* payable at *New Delhi.*

Limited copies of some back issues of the Journal are also available.

Published by the Registrar, National University of Educational Planning and Administration, 17-B, Sri Aurobindo Marg, New Delhi - 110016 and printed by the Publication Unit, NUEPA at M/s. Prabhat Offset Press, 2622, Kucha Chellan, Darya Ganj, New Delhi - 110002.

JOURNAL OF EDUCATIONAL PLANNING AND ADMINISTRATION
Vol. XXII No. 2 (April 2008)

CONTENTS

BOOK REVIEWS

Journal of Educational Planning and Administration
Volume XXII, No. 2, April 2008, pp. 119-151

Child Labour and Education For All
An Issue Paper[#]

L. Guarcello[*]
S. Lyon[*]
F.C. Rosati[*]

Abstract

Education is a key element in the prevention of child labour; at the same time, child labour is one of the main obstacles to Education for All (EFA). Understanding the interplay between education and child labour is, therefore, critical to achieving both EFA and child labour elimination goals. This paper forms part of UCW's broader efforts towards improving this understanding of education-child labour links, providing a brief overview of relevant research and key knowledge gaps. The study largely confirms the conventional wisdom that child labour harms children's ability to enter and survive in the school system, and makes it more difficult for children to derive educational benefit from schooling once in the system. The evidence also suggests that these negative effects are not limited to economic activity but also extend to household chores, and that the intensity of work (in economic activity or household chores) is particularly important in determining the impact of work on schooling. As regards the link between education provision and child labour, it points to the important role of inadequate schooling in keeping children out of the classroom and into work. This evidence indicates that both the school quality and school access can play a key role in household decisions concerning whether children study or work.

Introduction

The international community's efforts to achieve Education For All (EFA) and the progressive elimination of child labour are inextricably linked. Education, and in particular, of good quality up to the minimum age for entering into employment – is a

---

[#] This paper is part of the research carried out within UCW (Understanding Children's Work), a joint ILO, World Bank and UNICEF project. The views expressed here are those of the authors' and should not be attributed to the ILO, the World Bank, UNICEF or any of these agencies' member countries

[*] UCW-Project and University of Rome "Tor Vergata" via Columbia 2, 00133, Rome. Email: info@ucw-project.org

key element in the prevention of child labour. There is broad consensus that the single most effective way to stem the flow of school age children into work is to extend and improve access to school, so that families have the opportunity to invest in their children's education as the returns to such an investment are greater than those associated with involving children in work. Conversely, when the expected returns to education are low or education costs are high, schooling is likely to be seen by households as a less attractive alternative to work for their children.

At the same time, child labour is one of the main obstacles to EFA, as involvement in child labour is generally at a cost to children's ability to attend and perform in school. According to UNESCO, there were 104 million children of primary-school going age not enrolled in school at the turn of the millennium, the majority of them were working children. Child labour also adversely affects the academic achievement of most of the children who combine work and school, often inducing these children leave school prematurely and enter into work.

Understanding the interplay between education and child labour is therefore critical to achieving both EFA and child labour elimination goals. This paper forms part of UCW's broader efforts towards improving this understanding of education-child labour links, providing a brief overview of relevant research and key knowledge gaps.

The paper is structured as follows. The next section examines child labour as an obstacle to achieving EFA, reviewing descriptive and econometric evidence of the costs of child labour in terms of school entry, school survival and learning achievement. Section 3 then looks at education provisioning as a factor in child labour, reviewing empirical evidence of how school access and quality influence household decisions on the allocation of children's time between work and school. Section 3 also looks at information gaps that need to be filled in order to assess the potential of transitional education and flexible schooling initiatives in supporting national efforts towards EFA and child labour reduction. Section 4 covers conclusions.

Child Labour as an Obstacle to Education For All: How Work Affects Children's Ability to Attend and Benefit from Schooling

This section reviews evidence relating to the impact of work on school attendance, learning achievement and school life. It highlights the constraint that child labour poses to achieving Education For All. It looks firstly at the effects of child labour on children's ability to enter and survive in the school system, and secondly at the effect of child labour on children's ability to derive educational benefit from schooling once in the system. Obviously, the two issues are closely related, but a distinction is useful for expositional purposes.

Child Labour and School Attendance: Descriptive Evidence

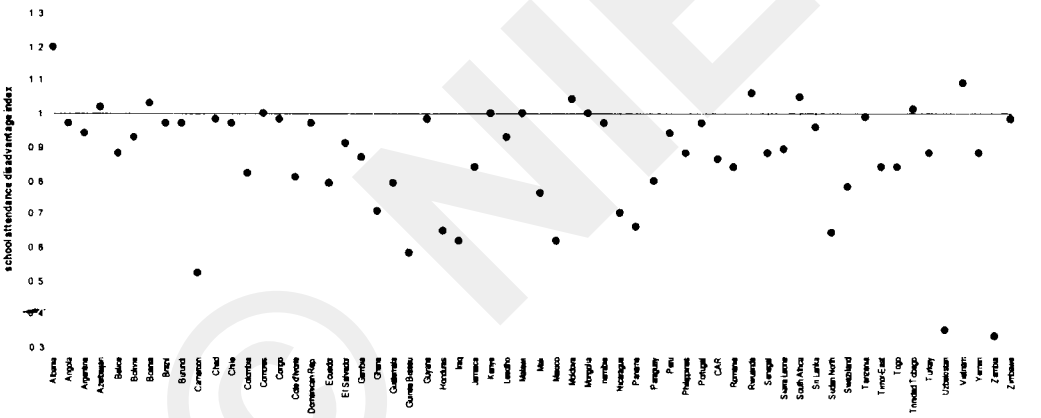
Working children are disadvantaged vis-à-vis their non-working counterparts in terms of their ability to attend school in many of the countries where child labour is common. As

shown in Figure 1, in a sample of 60 developing countries from the UCW Country Statistics,[1] working children face an attendance disadvantage of at least 10 percent in 30 countries, of at least 20 percent in 16 countries and of at least 30 percent in 10 countries. In seven countries, on the other hand, working children actually have a slight attendance *advantage* and in five others the attendance rates of working and non-working children are virtually equal.

The wide cross-country variation in terms of the relative success of working children in attending school could reflect underlying differences in the nature or intensity of work carried out by children as well as structural differences in the way that education systems accommodate the exigencies of children's work.[2] To the extent that the latter explanation holds, the large cross-country variation suggests substantial scope for policy intervention aimed at bringing and retaining working children in school.

FIGURE 1

School Attendance[(a)] Disadvantage of Working Children, 7-14 Years Age Group, Selected Countries



Notes: (a) School attendance disadvantage index refers to the school attendance rate of economically-active children expressed as a ratio of the school attendance rate of non-economically active children. The smaller is the index value, the higher is the disadvantage faced by economically-active children compared to children not involved in economic activity.

Source: UCW calculations based on household survey data sets

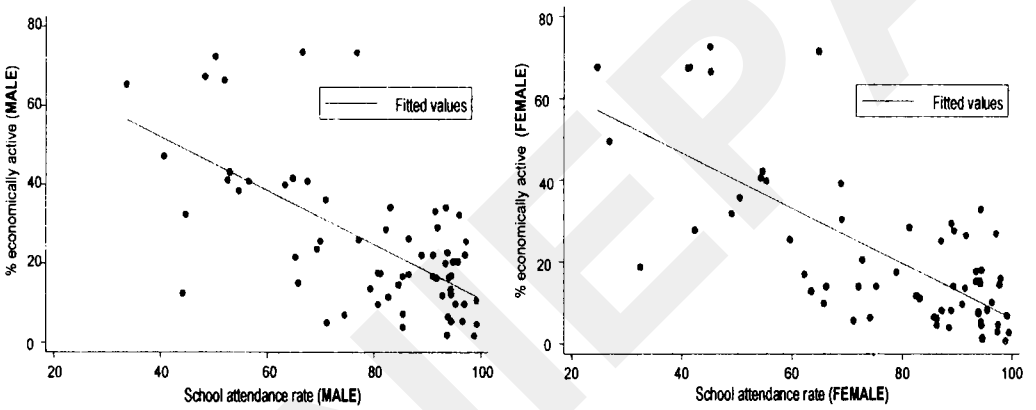
---

[1] UCW Country Statistics consist of a core set of child labour and schooling indicators for over 70 countries. They are based on nationally-representative household surveys conducted as part of ILO/IPEC SIMPOC, UNICEF MICS, World Bank LSMS and national household survey programmes. The Country Statistics can be found at the UCW website (ucw-project.org).

[2] Readers should also note that differences in data sources and survey instruments mean that cross-country comparisons must be made with caution).

High levels of child labour, therefore, translate into large numbers of out-of-school children in many national contexts, which in turn means lower overall attendance rates and slower progress towards achieving Education For All (EFA). This negative correlation between child labour and overall school attendance is illustrated in Figure 2, which plots rates of child economic activity and school attendance for boys and girls for countries included in the UCW Country Statistics.

FIGURE 2
School Attendance[a] and Child Labour, Children Aged 7-14 Years, by Sex



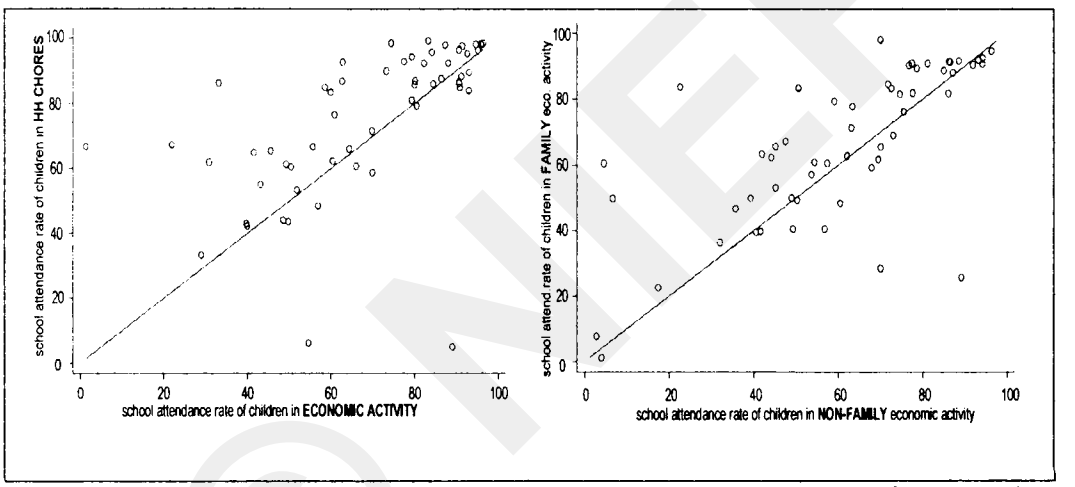
The preceding figures make clear that reducing child labour will be critical to achieving EFA in many national contexts. But it is important to identify which work categories or work settings are most detrimental to children's school attendance in order to guide policy towards EFA. Figure 3 looks at differences in school attendance by general work category (i.e., economic or household chores) and by work setting (i.e., family or non-family). It suggests that both distinctions are potentially important.[3] Household chores appear to pose a lesser barrier to school attendance than economic activity, and family-based economic activity appears to interfere less with schooling than similar work performed outside the family. This may be because family work is more flexible to the exigencies of school, or because families have a greater interest in safeguarding their children's education.

[3] The left hand graph plots the school attendance rate of children involved in economic activity versus that of children involved in household chores, and the right hand graph plots the school attendance rate of children in family work versus that of children in non-family work. For each graph, observations lying along the 45 degree line indicate that the attendance rate of the two groups being plotted is the same. If the observations lie above the 45 degree line, the attendance of the group plotted on the vertical axis is higher than the attendance of the group on the horizontal axis, while if the observations lie below the 45 degree line, the opposite holds true.

But this evidence is only suggestive of possible differential impact of various forms of works on attendance and therefore should be interpreted with caution. Some of the children, for example, might be performing both economic and non-economic activities or both family and non family work. It could also be that household chores and family-based economic activity are performed for fewer hours each week, leaving more time for going to school (the issue of work intensity and school attendance is looked at in the next section). More detailed evidence is required on the links between work category/setting and school attendance in order to draw firmer conclusions. Some of this evidence is presented later on, but more research is needed in this area.

FIGURE 3

School Attendance, Work Type (Economic or Household Chores[a]), and Work Setting (Family or Non-family), Children Aged 7-14 Years



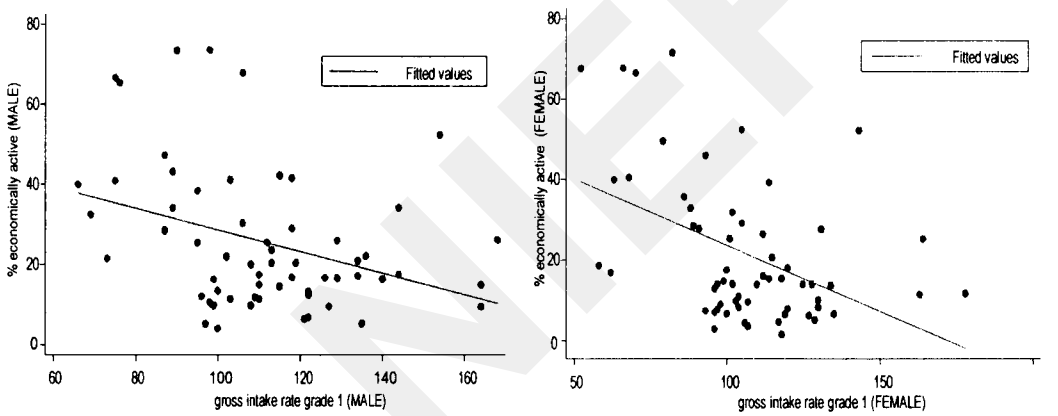
Notes: (a) Children carrying out household chore for at least one hour during the reference week.
Sources: UCW calculation based on household survey data sets, various countries.

Information on the school history of non-student working children is also important in understanding the links between work and school attendance. Particularly relevant in this context is the distinction between out-of-school working children who are non-school entrants (i.e., children never entering school), late entrants (i.e., children not yet enrolled but who eventually will be) and those who are early school leavers. The first group is undoubtedly worst off, denied the benefit of formal education altogether, and therefore constitutes a particular policy priority. As shown in Figure 4, in countries characterized by a relatively high prevalence of children's work in the age group 7-14 years, the ratio of children that enter school at any age is lower. This is an indication that higher the rate of children's work, higher the number of children that never enter school. For instance, in the case of Ethiopia, 63% of children aged 10–14 have no formal schooling at all, and many more from this age group enter school after the official starting age of six years.

Figure 5 and Figure 6 suggest that late entrants and early leavers also form important components of the non-student working children population.[4] Children's work is associated with a smaller proportion of children entering school at the official entrance age (Figure 5) and with a higher proportion of children leaving the schooling system prematurely (Figure 6) All three effects – non-entrance, delayed entrance and early leaving – combine to reduce the total time working children spend in school (Figure 7). These results underscore the fact that attention needs to be given to analysing and addressing the role of children's work at *both ends* of the primary school cycle, i.e., to its role in preventing or delaying school entry and in children leaving school prematurely.

FIGURE 4

Gross School Intake [(a)] and Child Labour, Children Aged 7-14 Years, by Sex



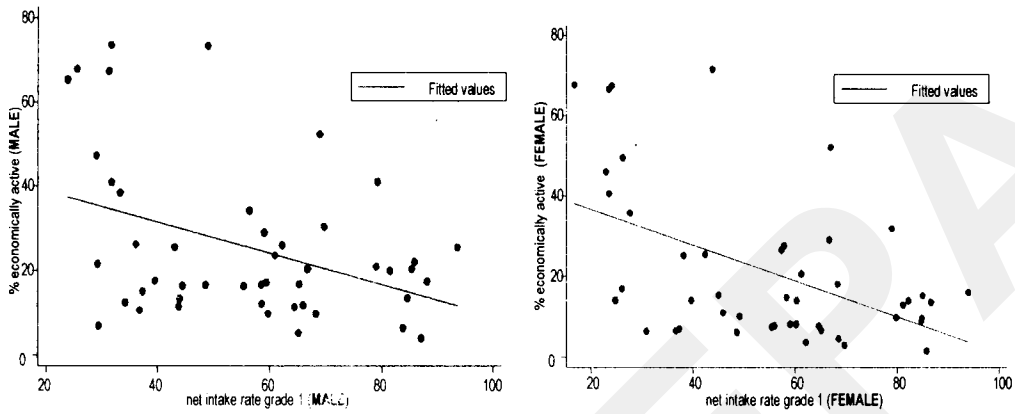
Notes: (a) *Gross intake rate grade 1* refers to the number of new entrants in the first grade of primary education regardless of age, expressed as a percentage of the population of the official primary school entrance age.

Source: (1) UNESCO, EFA Global Monitoring Report 2005 (for gross intake rate); (2) UCW calculation based on household survey data sets, various countries (for economically-active children).

[4] Evidence suggests that the former is often contributing factor to the latter, i.e., late entrance increases the chances that children will also leave the school system prematurely. See, for example, UCW (2005b): Children's work in Cambodia: a challenge for growth and poverty reduction, June 2005.

FIGURE 5

Net School Intake[a] and Child Labour, Children Aged 7-14 Years, by Sex

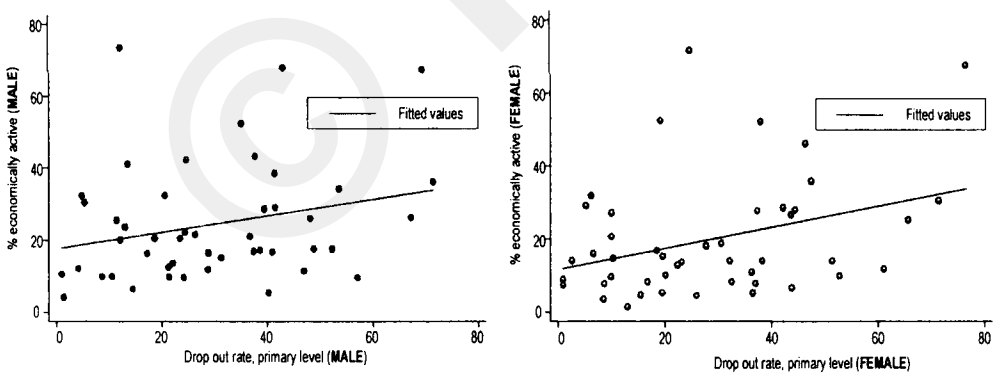


Note: (a) *Net intake rate grade 1* refers to the number of new entrants in the first grade of primary education of the official primary school entrance age, expressed as a percentage of the population of the official primary school entrance age.

Source: (1) UNESCO, EFA Global Monitoring Report 2005 (for gross intake rate); (2) UCW calculation, based on household survey data sets, various countries (for economically-active children).

FIGURE 6

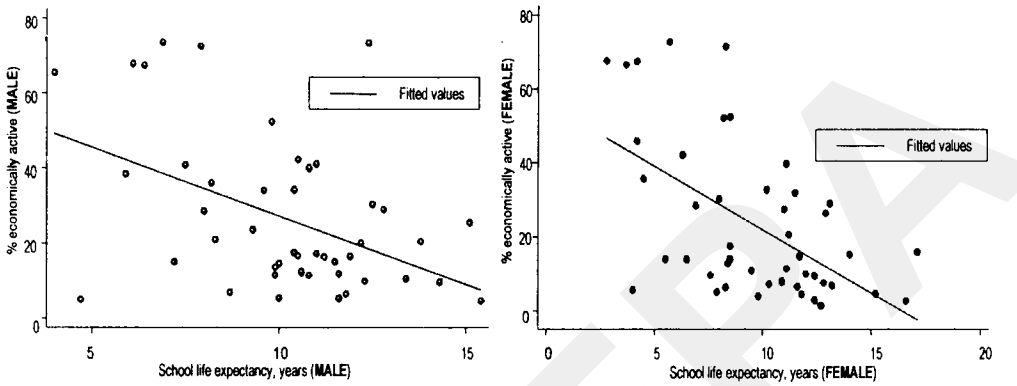
School Drop-out[a] Rate and Child Labour, Children Aged 7-14 Years, by Sex



Note: (a) Primary level drop-out rate refers to the percentage of pupils or students who drop out from a given grade or grades in a given school year. It is the difference between 100% and the sum of the promotion and repetition rates.

Source: (1) UNESCO, EFA Global Monitoring Report 2005 (for drop-out rate); (2) UCW calculation, based on household survey data sets, various countries (for economically-active children).

FIGURE 7
School Life Expectancy[a] and Child Labour, Children Aged 7-14 Years, by Sex



Note: (a) School life expectancy (SLE) refers to the number of years a child of school entrance age is expected to spend at school or university, including years spent on repetition.
Source: (1) UNESCO, EFA Global Monitoring Report 2005 (for school life expectancy); (2) UCW calculation, based on household survey data sets, various countries (for economically-active children).

A fourth, frequently overlooked, group of out-of-school working children is comprised of *irregular* school attendees (i.e., children formally enrolled in school but not attending for extended periods of time). Little is known about the size of this group, owing to the fact that data on attendance regularity are rarely collected as part of household surveys or government education statistics. But the often large discrepancies between official school *enrolment* estimates (capturing children formally enrolled) and *attendance* estimates (capturing children actually in class) from household surveys suggest that this group of irregular attendees may be considerable in many countries. Evidence from school-based surveys also suggests that working children have more difficulty in attending class regularly in some contexts (ILO/IPEC and UCW, 2005a). It stands to reason, therefore, that at least part of the school attendance disadvantage of working children reported in Figure 1 is a reflection of the fact that working children are forced to miss class more frequently than their non-working counterparts.

Child Labour and School Attendance: Causal Links

In the previous section we presented descriptive evidence of the negative link between school attendance and child labour. But for policy purposes, it is important to go beyond descriptive evidence to assess to what extent work involvement is a *cause* of low school attendance (and of poor learning achievement, as discussed in next section). While there has been considerable discussion on this issue in the literature [see for example, Grootaert and Patrinos (1999), and Pushkar and Ray (2002)], there have been very few analyses

where the causal link between work involvement and school attendance is definitively identified.

Establishing causality is complicated by the fact that child labour and school attendance are usually the result of a joint decision on the part of the household, and by the fact that this decision may be influenced by possibly unobserved factors, such as innate talent, family behaviour and or family preferences. This means that on the basis of cross-sectional data alone, it is difficult to know, for example, if it is low talent that induces a child not to go to school and hence start to work, or if it is the preference or need to work that then induces a child to drop out of school.

The use of panel data can help address at least some of these issues and to get firmer results in terms of causality. Panel data unfortunately remain scarce, constituting an important obstacle to informed policy design. **Where these data are available, they underscore the importance of children's as an obstacle to schooling.**

TABLE 1
Determinants of School Attendance in China
(Random Effects Logistic Regression)[a]

School Attendance	*Coeffficient*	*Std. Err.*	*z*
Female	-0.114	0.082	-1.39
School attendance 1989	0.788*	0.104*	7.61*
Household size	-0.089**	0.035*	-2.54*
Number of children	-0.101	0.090	-1.12
Hours non-market wk	*-0.043**	*0.011**	*-3.89**
Age	0.999**	0.141**	7.1**
Age squared	-0.055**	0.006**	-9.33*
Household head, female	0.170	0.132	1.29
Water access	0.255**	0.098**	2.61*

Notes: * statistically significant at the 5% level.
Source: UCW (2005a). *Towards statistical standards for children's non economic work: A discussion based on household survey data.* Guarcello L., Lyon S., Rosati F.C., and Valdivia C.

The effects of work on school attendance can also take a more indirect form. Work can lead to late school entry, which in turn is often associated with early school drop out and lack of completion of a course of study. Research in Cambodia illustrates this, indicating that work tends to delay school entry (or prevent it altogether), reducing the probability of completing primary school (UCW, 2005b). This effect is strongest for economic activities and for boys in Cambodia. Performing economic activity reduces the probability of entering school (as measured by the probability of entering school by age 14) of boys by 25 percent, and the probability of entering by the official school entry age by 17 percent. Non-economic activity also has a strong influence on school entry, again

particularly for boys. Involvement in household chores makes it about 13 percent less likely that boys enter school by age six, and also about 13 percent less likely that boys enter school at all.

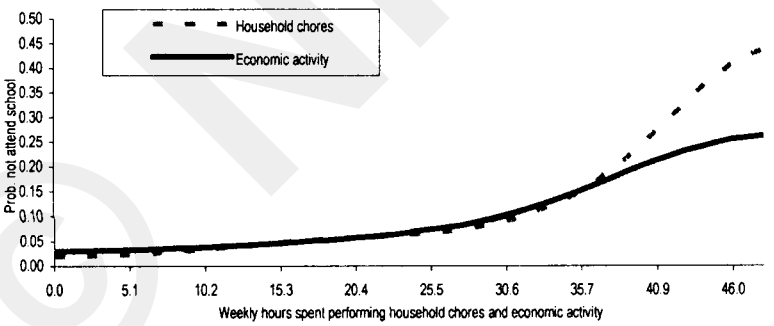
TABLE 2
Effect of Work on School Entry, by Outcome and Sex[(a)]

School Entry	*Economic Activity*		*Non-Economic Activity*	
	Boys	*Girls*	*Boys*	*Girls*
School Entry by Age 14	-25.11*	-8.95	-12.60*	-4.70
School Entry by Age 6	-17.37*	-8.90	-13.23*	-5.60

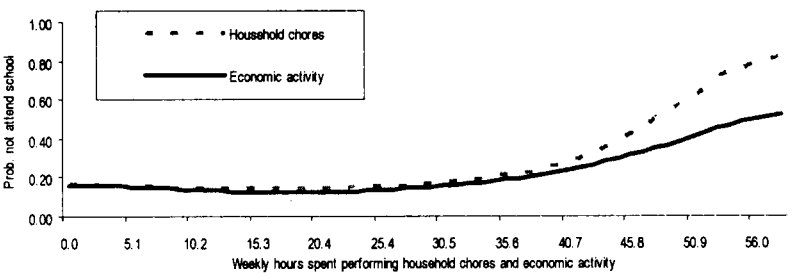
Notes: * statistically significant at the 5% level.
(a) Reported figures measure the percentage change (expressed on a 0 to 100 scale) in the probability associated to each school entry outcome as a result of working at each age.
Source: UCW (2005b) *Children's work in Cambodia: a challenge for growth and poverty reduction.*

FIGURE 8
School Non-Attendance versus Hours Spent Performing Household Chores and Economic Activity, Selected Countries (Kernel Regression)

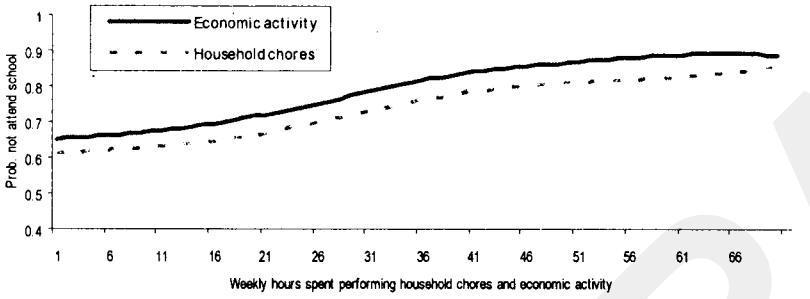
(a) Bolivia



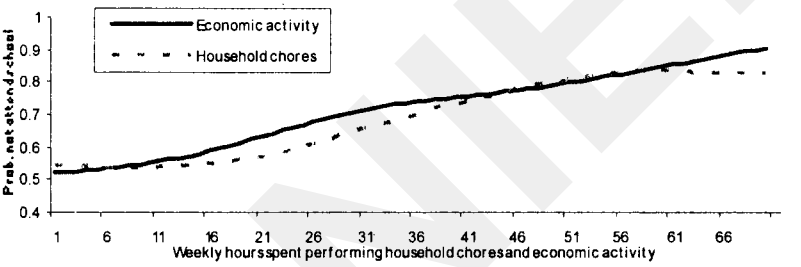
(b) Cambodia



(c) Mali



(d) Senegal



Source: UCW (2005). *Towards statistical standards for children's non-economic work: A discussion based on household survey data.* Guarcello L., Lyon S., Rosati F.C., and Valdivia C.

As discussed above, data limitations prevent us from presenting an easy replicable approach to identify the causal effects of work and of working hours on education. It is nonetheless possible to make use of synthetic indicators (kernel regression in the examples shown below) to offer a more direct and synthetic view of the relationship between hours of work and schooling for monitoring and policy design purposes. Instruments like these are suitable for describing the probabilistic link between variables, but cannot be used to derive strict causal relationships. They are basically reduced form estimates, and the relationship estimated is subject to change if the underlying structure changes (for example, if the gender distribution of employment changes). They must therefore be interpreted with care.

Figure 8 presents the results of kernel regressions reflecting the relationship between hours of work and the probability of attending school for four countries (Bolivia, Mali, Cambodia and Senegal) (UCW, 2005a). The results provide further evidence that work and education are competing activities, indicating clearly that the probability of attending

school declines with the increase of hours spent at work in both economic activity and household chores. But Figure 8 also indicates that the relationship between working hours and school attendance is very different across countries. For example, in Cambodia there is a reduction in the probability of attending school only if children work more than 30 hours a week, while in Senegal the probability of attending school begins to decrease if the working load exceeds 15 hours per week. More research is needed to assess what generates such differences and how they are related to school achievement (see also the following section).

The available evidence indicates that child work does negatively affect school attendance and school survival, and that this negative effect is not limited to economic activity, but extends also to household chores. The evidence also indicates that the length of the working day, in economic and non economic activity, is an essential dimension in assessing the detrimental effect of work on education. But more research is needed to improve understanding of the determinants of the link between child labour and school attendance. The relative importance and interplay of work-related factors (e.g., sector, intensity, setting, work schedule, etc.) and school-related factors (e.g., duration of the school day, flexibility of the school calendar, school distance, etc.) remain poorly understood, constituting an obstacle to identifying forms of work most disruptive of schooling as well as to designing policies aimed at making schooling and (benign) work more compatible. Much of the knowledge gap stems from the lack of adequate data, and specifically the lack of panel and retrospective data. This data gap is beginning to close as new panel surveys are underway or planned (e.g., Tanzania SIMPOC survey) and retrospective questions are increasingly included in SIMPOC and other survey questionnaires. In absence of appropriate data, information can be gathered by alternative techniques, such as the synthetic indicators presented above.

Child Labour and Learning Achievement

The preceding sections presented evidence underscoring the role of child labour as a constraint to school attendance. However, child labour is not only an obstacle to getting children into school but also to ensuring they that are able to learn effectively once there. While the group of working students has been subject of relatively little research, it stands to reason that children who are exhausted by the demands of work, or whose work schedule leaves them little time for homework, are less likely to derive educational benefit from their classroom time than their non-working counterparts. Working students may also have their interest directed away from academic pursuits, or be led to place less value on formal learning.

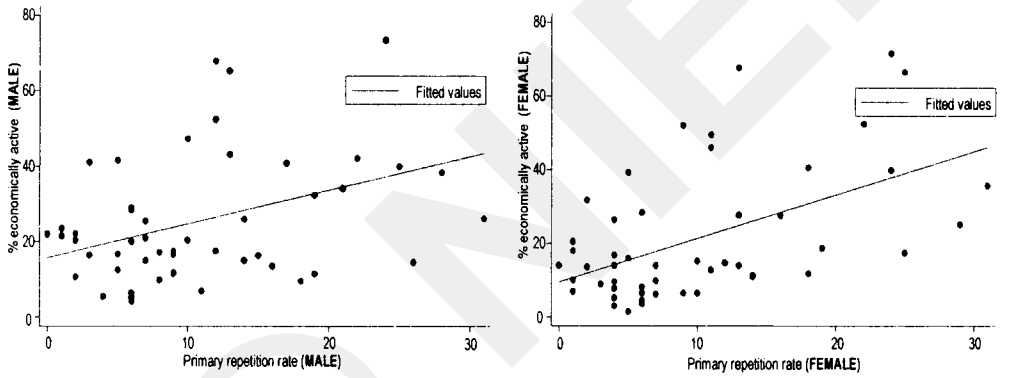
For all these reasons, school attendance alone is an incomplete indicator of the educational impact of child labour. There is also a need to measure the effect of child labour on actual classroom learning. Indeed, in terms of policy, it is learning achievement rather than school attendance that is of most relevance: the public or private return to investment in school is not realised if children fail to learn effectively while in the classroom. And school attendance and achievement are of course closely linked. A wide

body of evidence indicates that children who perform poorly in the classroom or are forced to repeat grades are much more likely to leave the school system prematurely.

Grade repetition rates in the countries covered by the UCW Country Statistics provide indirect evidence of a link between child labour and school performance. Figure 9, which plots economic activity and primary level repetition rates, shows a positive correlation between child labour and repetition for boys and girls alike. This lends support to the conventional wisdom that working children are in a disadvantaged position in the classroom leaving them more prone to repetition, to the detriment of both the children concerned and to the internal efficiency of education systems. But repetition is an imprecise indicator of school performance at best: promotion criteria can differ widely across countries and indeed even across school districts and schools within countries.

FIGURE 9

Grade Repetition[(a)] and Child Labour, Children Aged 7-14 Years, by Sex



Notes: (a) *Primary repetition rate* refers to the number of students enrolled in the same grade as in the previous year, expressed as a percentage of all students enrolled in primary school.

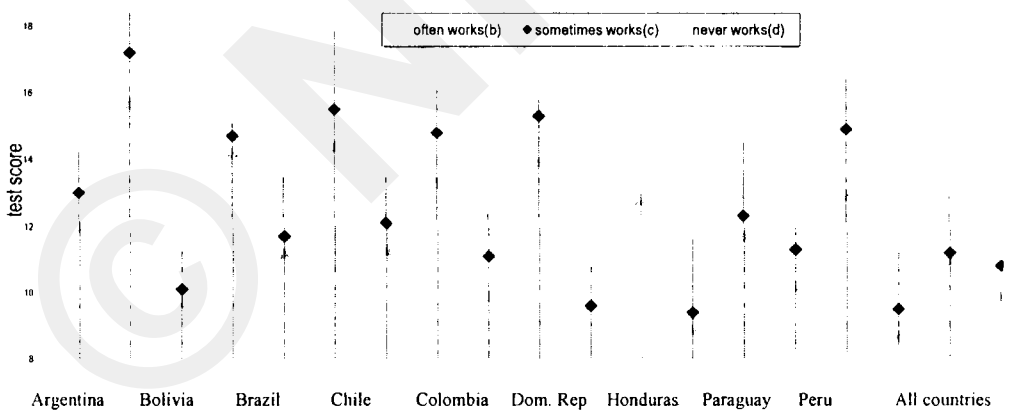
Source: (1) UNESCO, EFA Global Monitoring Report 2005 (for primary repetition rate); (2) UCW calculation, based on household survey data sets, various countries (for economically-active children).

Student test scores are for this reason a much better indicator for investigating links between child labour and learning achievement. The First Comparative International Study of Language, Mathematics and Associated Factors (FCIS) and the Third International Mathematics and Science Study (TIMSS) are among the most important of the very limited number of surveys containing information on student test scores, matched with student work status. Household survey instruments typically used for analysing information on child labour, e.g., ILO/IPEC SIMPOC surveys, World Bank LSMS surveys and UNICEF MICS surveys, are poorly suited for collecting information on learning achievement, meaning that internationally comparable data beyond FCIS and TIMSS are limited.

Calculations by Gunnarsson *et al* (2006) based on the FCIS dataset show a strong and consistent pattern across all the nine countries and the two achievement tests included in the survey: third- and fourth-graders "almost never" involved in paid work outside the family[5] outperformed children involved in this form of work "only some of the time", who in turn outperformed children "often" involved in this work (Figure 10). The differences in performance by work status were very large. In math, for example, children almost never working in the nine countries scored 13 percent higher than children working some of the time, and 22 percent higher than children working often. Differences in language test scores were similarly large. The authors show that the strong negative relationship holds up even when possible child-, family- and school-related confounding factors (i.e., involvement in preschool education, parental education, home learning environment, class instruction time, classroom learning environment, compulsory education legislation, etc.) are controlled for and the possible endogeneity of work is taken into account (Figure 10).

FIGURE 10

Third- and Fourth-Grade Test Scores,[(a)] by Involvement in Paid Work Outside the Family, Selected Latin America Countries



Notes: (a) Simple mean test score over all children in the child labour group in the county.
(b) Child often works outside the home when not in school.
(c) Child sometimes works outside the home when not in school.
(d) Child never works outside the home.

Source: Gunnarsson V., Orazem P.F. and Sanchez M.A. (2006): *Child Labour and School Achievement in Latin America.*

[5] The authors explain that they do not include work in the home in their empirical analysis because the lack of meaningful variation in homework meant that the pattern of test scores against homework intensity was unlikely to be reliable.

TABLE 3
Determinants of School Attendance in China
(Random Effects Logistic Regression)[a]

Variable	*Child Labour Exogenous[a]*		*Child Labour Endogenous[b]*	
	Mathematics	*Language*	*Mathematics*	*Language*
Work outside	-1.184(0.051)*	-1.087(0.036) *	-7.603(1.248) *	-3.980(0.484) *
Beta coefficient[c]	[-0.159]	[-0.204]	[-0.408]	[-0.295]
Child				
Age	0.097(0.027) *	0.045(0.019) *	0.309(0.070) *	0.162(0.024) *
Boy	0.731(0.079) *	-0.165(0.056) *	2.480(0.358) *	0.679(0.155) *
No preschool	-0.256(0.093) *	-0.181(0.066) *	-0.376(0.088) *	-0.079(0.040) *
Parents/Household				
Parent education	0.327(0.036) *	0.280(0.026) *	-0.107(0.106)	0.134(0.042) *
Books at home	0.735(0.061)	0.497(0.042) *	0.196(0.100) *	0.258(0.037) *
School				
Spanish enrolment/100	-0.046(0.008) *	0.022(0.006) *	-0.079(0.010) *	0.007(0.005)
Inadequate classroom environment	-0.329(0.046) *	-0.357(0.031) *	0.073(0.096)	-0.140(0.038) *
Math/week (Spanish/week)	0.027(0.017)	0.022(0.006) *	-0.073(0.016) *	-0.049(0.012) *
Community				
Urban	0.730(0.107) *	0.240(0.076) *	1.847(0.225) *	0.794(0.117) *
Rural	-0.692(0.122) *	-0.893(0.087) *	1.641(0.410) *	0.275(0.202)
Constant	13.778(0.446) *	10.657(0.248) *	14.400(0.453)v	8.045(0.391) *
R^2	0.084	0.127	0.063	0.091
N	20699	20290	20699	20290

Notes: (a) Standard errors in parentheses.
(b) Bootstrap standard errors in parentheses.
(c) The beta coefficient indicates the number of standard deviation the test score will change from a one standard deviation increase in child labour. Regressions also include dummy variables controlling for missing values.
* Statistically significant at 5% level.

Source: Gunnarsson, V., Orazem, P.F. and Sanchez, M.A. (2006): *Child Labour and School Achievement in Latin America*, 2006.

Orazen and Gunnarsson (2004) report similar findings using data from 10 poorer countries[6] included in the TIMSS survey. Working more than one hour outside the home lowered seventh- and eighth-grade math scores by at least 10 percent and science scores by between 11 and 15 percent, again controlling for possible confounding factors and the endogeneity of work. Outside jobs performed for less than the one hour per day threshold, however, had only a very small effect on science scores and no effect on math scores, suggesting that it may not be work *per se* but rather the intensity of work that is most damaging to achievement. The study findings also suggest that work setting is an important factor in how work affects achievement: 1-2 hours per day of home-based work had a much smaller negative impact, lowering test scores by only 1-2 percent.

Orazen and Gunnarsson (2004) note that the adverse effects of child labour on the seventh- and eighth-graders in the TIMSS sample were much smaller than for the third- and fourth-graders in the FCIS sample, pointing to the possibility that work is more harmful to human capital development at younger ages when the building blocks for more advanced knowledge acquisition are established.

Other country-specific studies yield similar conclusions to those emerging from the FCIS and TIMSS survey datasets. ILO/IPEC and UCW (2005) found that while involvement in economic activity *per se* did not affect the school performance of children in Turkey, the intensity of economic activity did significantly influence test scores. Ten additional hours of work per week, for example, raised the probability of scoring "poorly" in mathematics by almost four percentage points. Heady (2000) found that work involvement had a significant negative effect on reading and mathematics learning in Ghana, even after controlling for innate ability as measured by the Raven's Test.

TABLE 4

Estimated Impact of Children's Work on Learning Achievement, Cambodia [(a)]

	Grade 4		*Grade 6*	
	Literacy	*Numeracy*	*Literacy*	*Numeracy*
No school effects[(b)]	-13.6*	-16.2*	-8.1*	-9.3*
With school effects	-9.1*	-8.5*	-1.3	-1.1

Notes: (a) Reported figures measure the change in percentage points (on a 0 to 100 scale) in test scores resulting from working everyday before going to school.
* Statistically significant at 5% level.

Source: World Bank (2005): *Cambodia: Quality Basic Education for All.*

World Bank (2005), using test score data from a nationally representative survey of primary schools in Cambodia, reported that work had a significant detrimental effect on learning achievement, particularly among fourth-graders. Estimated models for literacy and numeracy test scores (including children, parental, household and schooling characteristics) indicated that working every day before going to school reduced literacy

[6] The countries included were: Colombia, Czech Republic, Hungary, Iran, Latvia, Lithuania, Romania, Russia, Slovak Republic and Thailand.

and numeracy test scores of Cambodian fourth-graders both by about nine percentage points (Table 5).

The research evidence reviewed above clearly confirms the conventional wisdom that working students face unique learning difficulties in the classroom. But beyond this general conclusion, many questions concerning the nature of the relationship between work involvement and learning achievement remain unanswered. Knowledge gaps of particular relevance in terms of policy formulation include the relationship between work intensity and school performance; the extent to which certain types of children's productive activity by their nature are more damaging to school performance than others; the relative importance of work type and work intensity in influencing learning achievement; the degree to which work is more damaging to learning at younger ages; and direction of the causal relationship between work and school performance (i.e., the extent to which a child is a poor student because s/he works, or alternatively works because s/he is a poor student).

Child Labour and Schooling: Student and Teacher Perceptions

A series of five recent ILO-supported school-based surveys in Brazil, Kenya, Lebanon, Sri Lanka and Turkey capture the perceptions of teachers and of students themselves regarding how work affects various dimensions of the school experience (ILO 2003, 2004a, 2004b, 2004c, and 2004d). While the interpretation of the survey results is subject to a number of caveats,[7] the information they provide on student and teacher perceptions nonetheless adds another layer to the understanding of the relationship between work and schooling.

Survey feedback from students indicated that those working often had greater difficulties in attending class regularly (Brazil, Sri Lanka, Turkey), arriving at class on time (Sri Lanka, Turkey) and completing homework (Brazil, Kenya, Turkey), and that these difficulties generally increased with work intensity. Teachers also saw the learning of children as being frequently compromised by their involvement in work, citing differences between working and non-working children in areas, such as class participation, homework completion, extra learning in the home, afterschool study, in addition to the areas listed by students. In Lebanon, where teachers were asked about

[7] The survey results should be interpreted with caution for two main reasons: (1) Sample design: schools and children selected are not always representative at country level, so a selection bias might influence the results; and (2) Characteristics of working children: Children observed in the surveys worked a rather limited number of hours in most of the countries, and work tended to be concentrated in a few days a week. Average working hours are about five per week in Turkey, less than two per hour during weekdays in Lebanon; almost 80 percent of children work not more than 14 hours per week (including weekends) in Kenya. Obviously, there is a problem of endogenous truncation in these cases. We cannot observe children working long hours in school, as they might be out of school having dropped out or not enrolled. So we might not observe those children for whom the working deeply conflicts with schooling.

student's psychological and physical health, they indicated that children working only in economic activity experienced recurring illness and depression more commonly than other groups of children.

Using pooled data from the Brazil, Turkey and Kenya school-based surveys, UCW and ILO/IPEC (2005) show that time in economic activity significantly affected the probability of children reporting missing classes and reporting feeling tired in class, even when controlling for child and household characteristics. In both cases, however, the magnitude of the effect was relatively small.

TABLE 5

Determinants of Attendance Regularity, Classroom Fatigue and Drop-Out Intentions (Pooled Data for Brazil, Kenya and Turkey), Marginal Effects After Probit Estimation

Explanatory Variable	*Dependent Variable*			
	Attendance Regularity[1]		*Sleepiness*[2]	
	dy/dx	*z*	*dy/dx*	*z*
Child age	0.159	1.05	0.2989	1.17
Child age squared	-0.005	-0.98	-0.0113	-1.18
Female child	-0.014	-1.53	-0.0025	-0.12
Mothers education level	0.009	0.56	-0.0106	-0.39
Fathers education	0.020	1.72	-0.0341	-1.06
Weekly hours in economic activity	0.001*	2.29*	0.0037*	5.10*
country_Brazil	0.178	3.9	0.4442*	10.14*
country_Kenya	0.056	3.16	-0.2249*	-9.46*
Weekly hours in household chores	0.000	0.25	0.0019	1.53

Notes: * Statistically significant at 5% level.

(1) Dummy variable taking value of 1 if one or more classes missed and value of 0 otherwise.

(2) Dummy variable taking value of 1 if student reported ever feeling sleepy in class and value of 0 otherwise.

Source: UCW calculations based on data from Brazil school-based survey (*Child Labour and Education School Survey*, May 2004); Kenya school-based survey *(Child Work, School Attendance and Performance in Kenya*, April 2004); and Ankara school-based survey (*Light Work, Academic Performance and School Attendance of Children in Turkey*, Ankara, May 2004) as cited in ILO/IPEC and UCW Project, *Impact of Children's Work on School Attendance and Performance*: *A Review of School Survey Evidence from Five Countries*, March 2005.

The perceptions of both students and teachers in the five countries suggested that difficulties associated with work were largely limited to children performing economic

activity rather than those performing household chores. Indeed, in many instances, children performing only household chores seemed to actually face fewer learning difficulties than children not working at all. Multivariate analysis also showed no significant relationship between time in household chores and the likelihood of learning difficulties (Table 5). One possible explanation for these findings is that children performing household chores are more responsible than their non-working counterparts and therefore more likely to take their studies seriously. Another is that the time use of children performing chores is supervised more closely by the elders in the home, helping to ensure adequate time is allocated to study.

Education Provision as a Factor in Child Labour: How Inadequate Schooling Can "Push" Children into Work

In examining the relationship between school non-enrolment and child labour, the direction of causality is not always apparent. In some cases, children are "pushed" into work by poor quality, irrelevant or inaccessible schools, while in other cases children are "pulled" from school and into work by household poverty or other economic motives. The policy implications of this distinction are clear: where "push" factors prevail, supply-side policy measures targeting the school system hold particular promise for reducing child labour; where "pull" factors are relevant, demand-side policy measures targeting the household are also needed for an effective response to child labour.

This section focuses on the former case, examining the push factors contributing to child labour. It reviews empirical evidence relating to the specific links between education access and quality, on one hand, and child labour, on the other. It also reviews research gaps that need to be filled to assess the potential of transitional education and flexible schooling in supporting national efforts towards EFA and child labour reduction goals.

Impact of Supply Constraints

School access has long been recognised as an important element in determining household choices concerning children's time-use. A wide range of results are available showing that increased and eased access to school reduces children's work in both economic activities and household chores. The availability of a primary school within the village/community and distance from school, in particular, has significant effects on child work reduction.

Even when school access constraints are limited to higher levels of schooling, they can be part of the reason why children do not attend school at all or drop out of the primary school. The most commonly used explanation for this finding is that returns to education tend to be much higher for (lower) secondary than for primary. Parents have hence an incentive to send their children to primary school rather than to work if they know that their offspring will also have access to (lower) secondary education, where the seed of the initial investment in human capital begins to bear fruit.

Table 6 and Table 7 report estimation results from recent UCW research (2003a, 2003b and 2006) and serve to illustrate the effects described above.[8] The results indicate that the availability of a school has well-defined impact on children's work, with some variation by sex and residence. The differences by sex appear to be country specific, while school availability is not surprisingly especially relevant in rural areas.

TABLE 6
Effects of Travel Time to School on Children's Activities[a]

Country	*Sex/ Residence*	*Work Only*		*School Only*		*Work and School*		*No Activities*	
		Marginal Effect	*z*	*Marginal Effect*	*z*	*Marginal Effect*	*z*	*Marginal Effect*	*z*
Yemen	Male	0.0003*	8.4*	-0.002*	-12.6*	0.00	0.3	0.0017*	11.6*
	Female	0.0005*	8.0*	-0.003*	-17*	-0.00010*	-3.8*	0.0029*	14.8*
	Urban	0.0002*	4.1*	-0.001*	-5.2*	0.00010*	2.3*	0.0012*	4.5*
	Rural	0.0007*	11.2*	-0.003*	-19.5*	-0.00010*	-3.5*	0.0024*	16.0*
Morocco	Urban	.0002	0.96	-.003*	-2.42*	-7.79E-08	-0.22	.003*	2.41*
	Rural	0.001*	2.2*	-0.002*	-1.97*	0.00006	0.62	0.0002	0.26

Notes: * Statistically significant at 5% level.
Source: UCW calculations based on Yemen, NPS 1999; Morocco, LSMS 1998-99.

It should be noted, however, that in several cases increased school availability seems to increase school attendance by reducing the number of "inactive" children (i.e., those neither in school nor working) rather than by reducing the number of working children. This seems to indicate that the decision to send children to work is not easy to reverse by reducing only the cost of accessing education. The same comments apply to the effect of distance from school: reducing travel time to school does reduce child work, but appears to generate an increase in school attendance mainly by reducing the number of inactive children.

While the evidence on the effects of school on child work and on the other children activities is well established in general, more analysis is necessary in order to understand the reasons for the cross country differences by sex in these effects and, especially, the reasons for the differentiated effects on the various children's activities. This information is very important for policy design and for the selection of the appropriate policy mix. In particular, given the amount of existing evidence on the subject, it would be helpful to have it consolidated in a systematic overview aimed at understanding the difference in terms of impact by sex and by children's activities. It would be important to assess what are the conditions that affect the efficacy of improved access, especially in relation to the characteristics of the country, of the school system, etc.

---

[8] A more detailed review of the literature on school access and child labour is beyond the scope of this paper.

TABLE 7
Effect of School Availability in Village/Community on Children's Activity [a]

Country	*Sex/ Residence*	*School Type/Level*	*Work Only*		*School Only*		*Work and School*		*No Activities*	
			Marginal Effect	*z*	*Marginal Effect*	*z*	*Marginal Effect*	*z*	*Marginal Effect*	*z*
Yemen	Male	Basic School*	-0.0129*	-6.4*	0.059*	8.2*	-0.005*	-2.2*	-0.041*	-6.3*
		Koranic School*	-0.0016	-1.0	0.005	0.7	-0.002	-0.8	-0.002	-0.3
		Secondary School	-0.0027*	-2.0*	0.021*	3.6*	0.001	0.6	-0.019*	-3.7*
	Female	Basic School*	-0.0058*	-2.0*	0.042*	5*	0.001	1.5	-0.037*	-4.4*
		Koranic School*	-0.0162*	-6.0*	0.054*	7.3*	-0.002	-1.8	-0.036*	-4.9*
		Secondary School	-0.0170*	-7.1*	0.082*	12.6*	0.001	0.8	-0.065*	-10.1*
	Urban	Basic School*	-0.0020	-0.7	0.015	0.7	-0.001	-0.4	-0.012	-0.6
		Koranic School*	-0.0003	-0.2	-0.018*	-2.0*	-0.002	-1.3	0.020*	2.3*
		Secondary School	0.0015	0.8	0.000	0.0	0.002	0.9	-0.003	-0.2
	Rural	Basic School*	-0.0258*	-6.4*	0.073*	9.1*	-0.001	-0.7	-0.046*	-5.7*
		Koranic School*	-0.0005	-0.1	0.006	0.7	0.001	0.4	-0.007	-0.7
		Secondary School	-0.0091*	-3.1*	0.036*	5.1*	0.001	0.5	-0.028	-4
Morocco	Rural	Primary School	-0.067*	-3.59*	0.123*	5.2*	0.003	1.1	-0.059*	-2.8*
Cambodia	Male	Lower Secondary School *	-0.005*	-2.0*	0.025*	2.6*	-0.019*	-2.0*	-0.001	-0.8
	Female	Lower Secondary School *	-0.007*	-2.1*	0.032*	2.3*	-0.024	-1.7	-0.002	-1.3
	Urban	Lower Secondary School *	0.001	0.3	-0.031	-1.5	0.030	1.5	-0.001	-0.3
	Rural	Lower Secondary School *	-0.007*	-2.1*	0.029*	2.7*	-0.021*	-2.0*	-0.001	-0.9

Notes: * Statistically significant at 5% level.
Source: UCW calculations, based on Yemen, NPS 1999; Morocco, LSMS 1998-99; Cambodia, CSES 2003-2204, Cambodia EMIS 2003-2004.

Finally, even more important is to begin to move to the analysis in the direction of comparing the relative efficacy of the different interventions (see also the section on school quality) like access to school, school quality, income transfers etc., and of assessing the factors affecting efficacy. As school enrolment increases, the children (working or inactive) left out become increasingly more difficult to reach and the identification of effective and cost efficient policy mix gains in importance.

Impact of School Quality

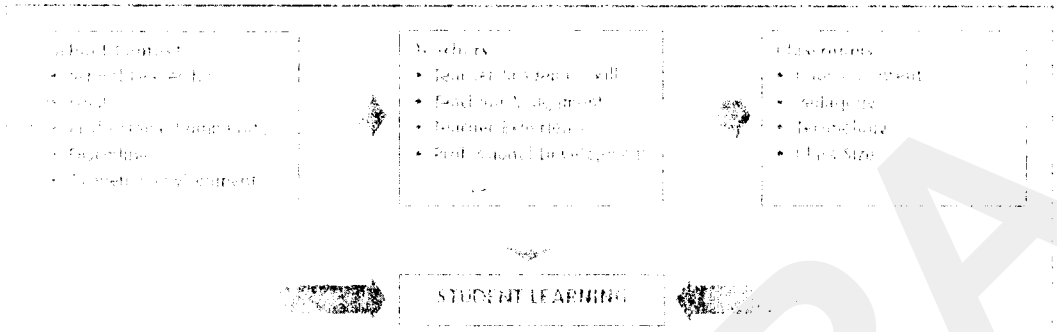
The quality of education is currently at the centre of the education reform debate. It also constitutes an important component of the EFA objectives, and an in-depth analysis of the link between quality of education and student achievements is contained in the 2005 EFA Report (UNESCO, 2005). This section discusses the role of school quality in determining school attendance and involvement in child work. Evidence of the effects of school quality on school attendance and, especially, on child labour, is limited. The little existing evidence has been reviewed in the 2005 EFA Report and in a companion paper developed by UCW (2006). This section therefore reports only on some recent results from UCW research and on remaining research gaps.

Before proceeding, it is worth noting that the issue of education quality is of particular policy relevance, as underlying it is the question of whether, in order to promote school enrolment and reduce child labour, providing "quality" education is necessary in addition to providing access to education. It is obvious that better quality education is preferable in general. It is also clear that without adequate access, little benefits can be derived from improving quality. However, in many countries, a decision must be made on whether, at the margin, to use additional resources for improving access or quality.

There is strong evidence that school quality impacts expected returns to education, thereby also influencing household decisions concerning investment in children's human capital. But there is much less defined view on what the constituents of school quality are, and on how to measure them for practical policy purposes.

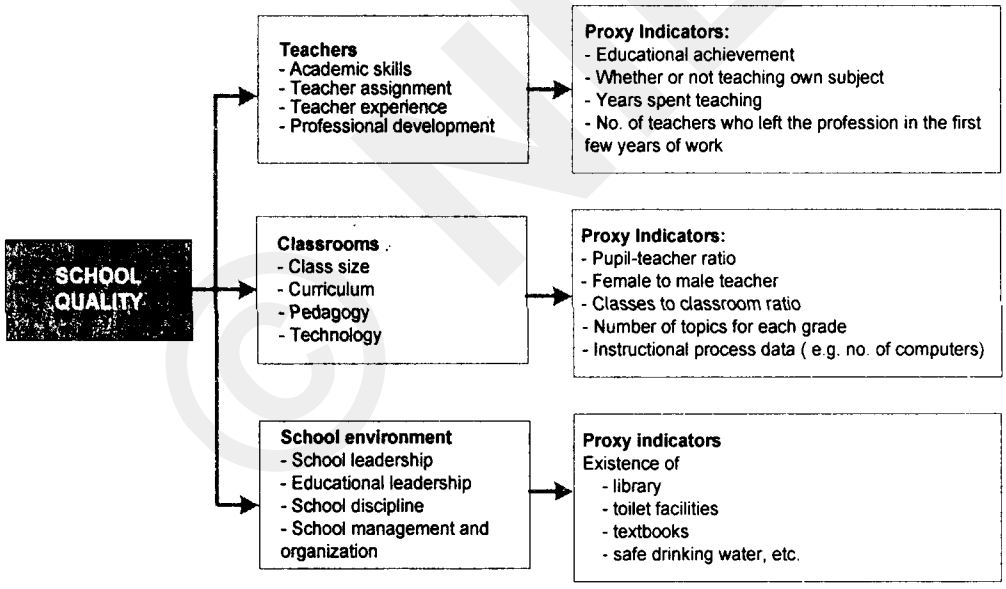
But translating the complex relationships depicted in Figure 11 into measurable indicators is not straightforward. Figure 12 illustrates how a set of commonly-used indicators can be mapped back to this framework. As is easy to see, the proxy indicators used in empirical studies only partially reflect the main elements of school quality. In fact, the limited availability of satisfactory information on school quality is one of the areas that future research should address. Keeping in mind the problem of data availability, some evidence about the relationship between school quality and child labour is looked at below. A full review of the literature in this area is beyond the scope of this issues paper.

FIGURE 11
School Quality Indicators and their Relationship to Student Learning



Source: U.S. Department of Education. National Center for Education Statistics. Monitoring School Quality: An Indicators Report, NCES 2001–030 by Daniel P. Mayer, John E. Mullens, and Mary T. Moore. John Ralph, Project Officer. Washington, DC: 2000.

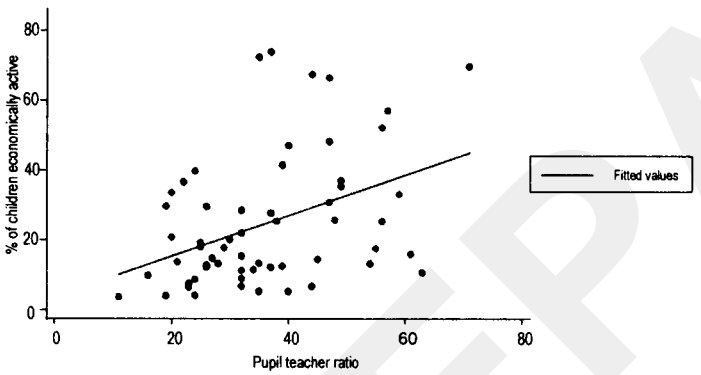
FIGURE 12
Summary of School Quality Indicators



What are the effects of school quality on child labour and school enrolment? A look at the cross country data for the few available indicators provides a suggestive but not very precise picture. Figure 13 shows that the pupil-teacher ratio is strongly and positively correlated with the percentage of working children. As the number of students per teacher increases, the percentage of working children in each country rises. Not

surprisingly, however, the variation is very large, as numerous other factors are also at play in determining children's work.

FIGURE 13
Pupil-Teacher Ratio versus Working Children



Source: (1) UNESCO 2005 EFA Report (for pupil-teacher ratio);
(2) UCW calculation, based on household survey, various countries (for working children)

The sex of the teacher also has an apparent influence on the level of child labour. Figure 14 depicts a negative relationship between the percentage of female teachers and the percentage of both male working children and female working children. Again, there is a wide range of variation, particularly at low levels of child economic activity. The link between the sex of the teacher and child labour might be explained at least in part by research indicating that pupils taught by female teachers perform better than pupils taught by male teachers (Postlethwaite T.N., 2004), thereby helping to prevent them from dropping out of school and entering work.

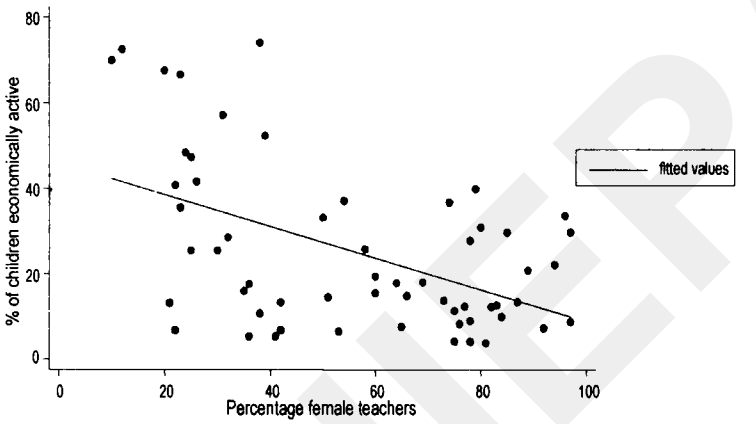
It is interesting to note that in both Figure 13 and Figure 14 the dispersion around the regression line tends to decline as the percentage of working children for each country decreases. This suggests that school quality seems to matter more at relatively high levels of school attendance (and low levels of child work).

These descriptive results are suggestive of a potential role of school quality in addressing child labour. They are, however, far from identifying causal effects and as such cannot be used for policy formulation with any confidence. In cross country panel analysis, which also takes into consideration the role of other variables, the results are not clearly defined[9]. In fact, the pupil-teacher ratio seems to be the only indicator, among the few available, for which a causal link with child work can be unambiguously established.

[9] UCW (2006), *Does school quality matter for out of school children?* UCW forthcoming working paper.

While cross country evidence is useful, the lack of data on several relevant determinants of child work and the limited number of observations makes the use of micro data for a single country more robust.

FIGURE 14
Presence of Female Teachers versus Working Children



Source: (1) UNESCO 2005 EFA Report (for % female teachers);
(2) UCW calculation based on household survey, various countries (for working children)

Table 8 and Table 9 present the results of a recent UCW study on school quality and child labour based on microdata from Yemen and Cambodia.[10] In Yemen, both the male to female teacher ratio and the classes to classroom ratio appear significant in determining the time use patterns of children. Both quality indicators appear to be relevant in determining school attendance in particular. In Cambodia, among the several indicators of school quality which were available, only two appear to be significant: the pupil to teacher ratio and the percentage of primary schools with a library. In sum, the evidence from Yemen and Cambodia indicates that quality of education does indeed matter for child labour and school attendance. However, the effects of school quality appears to be relatively "small", with large improvement in school quality potentially leading to only moderate reductions in child work and increases in school attendance.

[10] UCW (2006), *Does school quality matter for out of school children?* UCW forthcoming working paper.

TABLE 8

Impact of School Quality on Household Decisions Regarding School and Work, Marginal Effects After Bivariate Probit, Yemen[a]

Sex and Residence	*School Quality Indicators*	*Economic Activity Only*		*School Only*		*Combining Economic Activity and School*		*Neither in Economic Activity nor in School*	
		Marginal Effects	*z*	*Marginal Effects*	*z*	*Marginal Effects*	*z*	*Marginal Effects*	*z*
Total	Male to Female Teacher Ratio	0.0001*	2.6*	-0.0008*	-9.5*	-0.0001*	-3.8*	0.0008*	9.8*
	Classes to Classroom Ratio	0.0006	0.4	-0.0130*	-2.4*	-0.0014	-1.5	0.0138*	2.7*
Male	Male to Female Teacher Ratio	0.00001	0.8	-0.0004*	-3.8*	-0.0001*	-2.4*	0.0005*	4.8*
	Classes to Classroom Ratio	-0.0008	-0.6	-0.0148*	-2.3*	-0.0062*	-3.2*	0.0218*	3.8*
Female	Male to Female Teacher Ratio	0.0001*	2.8*	-0.0012*	-10.0*	-0.0001*	-3.8*	0.0011*	9.4*
	Classes to Classroom Ratio	0.0051*	2.0*	-0.0165*	-2.1*	0.0004*	0.5	0.0110	1.4
Urban	Male to Female Teacher Ratio	0.00001	1.2	-0.0009*	-5.2*	0.00001	-0.9	0.0008*	5.3*
	Classes to Classroom Ratio	0.0029*	2.2*	0.0019	0.2	0.0037*	2.6*	-0.0085	-0.9
Rural	Male to Female Teacher Ratio	0.0001*	2.1*	-0.0008*	-8.4*	-0.0001*	-4.3*	0.0008*	8.5*
	Classes to Classroom Ratio	-0.0016	-0.7	-0.0123*	-2.1*	-0.0033*	-2.7*	0.0171*	3.0*

Notes: * Statistically significant at 5 % level.
Source: UCW calculations based on Yemen National Poverty Survey, 1999 and Yemen School-based survey, 2000

TABLE 9

Impact of School Quality on HH Decisions Regarding School and Work, Marginal Effects After Bivariate Probit, Cambodia

Sex and Residence	*School Quality Indicators*	*Economic Activity Only*		*School Only*		*Combining Economic Activity and School*		*Neither in Economic Activity nor in School*	
		Marginal Effects	*z*	*Marginal Effects*	*z*	*Marginal Effects*	*z*	*Marginal Effects*	*z*
Total	Pupil Teacher Ratio	0.0001*	2.1*	-0.0007*	-3.4*	0.0006*	2.9*	0.00001	0.4
	% of Primary Schools with Parent Association	0.0060	1.0	-0.0140	-0.6	0.0056	0.3	0.00230	0.8
	% of Primary School with Libraries	-0.0161*	-4.2*	0.0311*	2.2*	-0.0085	-0.6	-0.00651*	-3.5*
Male	Pupil Teacher Ratio	0.0001*	2.0*	-0.0008*	-2.8*	0.0006*	2.3*	0.00002	0.8
	% of Primary Schools with Parent Association	0.0035	0.5	-0.0091	-0.3	0.0043	0.1	0.00133	0.4
	% of Primary School with Libraries	-0.0055	-1.2	0.0216	1.1	-0.0143	-0.7	-0.00178	-0.8
Female	Pupil Teacher Ratio	0.0001	0.9	-0.0006	-2.0	0.0005	1.8	-0.00001	-0.2
	% of Primary Schools with Parent Association	0.0091	1.0	-0.0181	-0.6	0.0053	0.2	0.00366	0.7
	% of Primary School with Libraries	-0.0278*	-4.5*	0.0412*	2.0*	-0.0011	-0.1	-0.01230*	-3.7*
Urban	Pupil Teacher Ratio	0.00001	-0.1	-0.0031*	-5.0*	0.0033	5.4	-0.0002*	-2.0*
	% of Primary Schools with Parent Association	0.0052	0.9	-0.0121	-0.3	0.0026	0.1	0.0043	0.9
	% of Primary School with Libraries	-0.0116*	-2.5*	0.0910*	3.1*	-0.0735*	-2.6*	-0.0059	-1.5
Rural	Pupil Teacher Ratio	0.0001*	2.0*	-0.0004*	-2.0*	0.0003	1.4	0.0000	1.0
	% of Primary Schools with Parent Association	0.0043	0.5	-0.0274	-1.1	0.0229	0.9	0.0002	0.1
	% of Primary School With Libraries	-0.0178*	-3.6*	0.0098	0.6	0.0153	1.0	-0.0073*	-3.5*

Notes: * Statistically significant at 5% level.
Source: UCW calculations, based on Cambodia CSES 2003-04 and Cambodia EMIS 2003-04.

Several qualifications and further research and analysis is necessary before we can go beyond the general statement that school quality matters for child labour. First, as mentioned above, more and better information is needed on school quality indicators. A systematic effort at the international level should possibly be developed to design and

collect such indicators. More analysis is also needed comparing the effects of school access with those of school quality to be able to formulate recommendations on the appropriate policy mix between the two. Finally, if the results presented above are taken at face value, there is a need for further investigation into the effects of school quality in retaining children in school and in avoiding early drop-out. (Preliminary fragmentary evidence seems, in fact, to indicate that school quality is more effective in retaining children to school rather in attracting them to it for the first time).

Impact of Special Transitional Education and Flexible Schooling Programme on Child Labour

The previous sections highlighted the important role of school access and school quality in determining school attendance and children's involvement in work. Special transitional education (TE)[11] and flexible schooling (FS)[12] programmes constitute a third important supply-side element influencing child labour and school attendance outcomes in many national contexts. Such programmes can take numerous forms, with some serving as a bridge to entry or re-entry into the formal education system and others serving as sources of remedial support or special needs education within the formal system. Still others are designed to make the schooling system for accommodating of children's work exigencies

---

[11] Transitional education programmes are aimed at smoothing the transition of child labourers and other vulnerable children into the formal school system. They are based on the premise that child labourers are often difficult to insert directly (back) into the formal education system because of their age, different life experiences and lack of familiarity with the school environment. International programming experience points to two main policy options for easing the transition of child labourers back into the formal school system: (a) remedial education, providing returning children and child labourers with special remedial support within the regular classroom context; and (b) "bridging" education, involving intensive compensatory or "catch-up" courses designed to raise academic proficiency, offered in either non-formal community schools or in school facilities prior to, during or after regular classes.

[12] Flexible schooling programmes are targeted specifically to working children, and are designed to make school more accommodating of the exigencies of work. These programmes are not, therefore, aimed primarily at reducing child work per se, but rather at increasing school attendance and reducing drop-out among child labourers. Flexible schooling programmes are designed to balance the learning and earning needs of families and children by facilitating fluid work/study schedules. They encompass formal, non-formal and work-based learning arrangements, and, ideally, help children who need or want to work to move back and forth between systems considered to be equally valid, rather than one the "poor cousin" of the other. International programming experience points to three main policy options for helping children to combine work and school more easily: (a) flexible delivery modes, designed to make schooling more accommodative of children's work schedules; (b) adaptive curricula, designed to make course contents more relevant to the lives of working children; and (c) substitute non-formal education, designed to impart basic literacy, numeracy and life skills at times not in conflict with work.

and schedules. They are all based on the premise that child labourers need special support in order to ensure that, once in school, they remain there and are able to learn effectively.

Information on transitional education and flexible schooling programmes unfortunately remains very limited. Little is known about the difference they are making in reducing the exclusion from education of working children, and how many child labourers are being reached, and with what impact. This limits the lessons that current TE and FS efforts offer in terms of which policy approaches are most effective or are best candidates for broad-scale replication. This section briefly examines some of the research priorities and information gaps that need to be filled in order to assess the potential of transitional education and flexible schooling in supporting national efforts towards EFA and child labour reduction.

A systematic mapping of the wide variety of policy and programmes experiences in both transitional education and flexible schooling is needed as a first step towards the identification of good practices. These programmes have taken a many forms, either because of trying to address different needs or because of using different approaches to address the same need. There is now a substantial body of programme experience that could be used to compile a set of good practices and/or guidelines for action. Such a mapping would need to bring together information on a wide variety of qualitative and quantitative variables.[13] The mapping of TE and FS programmes would also need to aim at providing an assessment of the relative dimensions of the programmes, in order to obtain a picture not only of the instruments used, but also of the distribution of resources invested. It would be useful to compare the amount of resources invested in TE and FS programmes with those utilised in other strategies to cope with the needs of working children.

While piloting should ideally be short-term and catalytic, testing models which can then be mainstreamed into national policies and replicated on a broader scale, this mainstreaming and replication does not appear to be occurring in the case of many TE and FS pilot programmes for working children. Why are these programmes typically of limited coverage? Answering this question will be critical to assessing the potential of these programmes as vehicles for addressing the education rights of out-of-school working children. The following areas of research seem of particular relevance in this context: identification of the approaches suitable for scaling up, also looking at international experience on the few large scale programmes; the challenges of scaling up (bottlenecks, institutional constraints, political constraints, the need for community mobilization, the need for systematic evaluation of pilot experience to guide scaling up,

---

[13] Including, for example, geographical distribution; classification of programme by type of provider (e.g., community/faith-based, private, public or mixed); pedagogical approach; geographic coverage; beneficiary population; number of teachers/instructors; per unit costs; services provided (e.g., accelerated "catch-up" learning, specific skills training, basic literacy and numeracy, etc.); physical facilities and instructional materials; management structure; and stakeholder involvement.

etc); links between non-formal education, vocational training and labour market outcomes; and how to address the issue of the links between the formal and non-formal education systems when the latter is of large scale.

Evaluations of TE and FS initiatives are relatively scarce, and more attention is needed to piloting methodologically-sound evaluation studies. There are two main directions that the researcher could follow: (a) look for existing data that, through matching with programme information, would allow reliable estimate; (b) try to address the issue at the source by designing and implementing the necessary data collection jointly with the implementation of a programme. While care is necessary in designing such data collection, the costs of the research are not necessarily large. Treatment and control groups can be limited in size, especially if the programme is also of limited scope (e.g. limited coverage area, small target group, etc.), but still convey very useful quantitative information on the impact of the programme. Evaluation criteria should include the following: programme sustainability, with special attention to the issue of integration with the main education system or through other institutional channels; programme replicability, i.e., the extent to which the approach followed is dependent on local factors, thereby limiting its applicability to other contexts; learning outcomes, i.e., student achievement tests including changes, positive or negative, in the outcomes of other, non-beneficiary students; and school survival, i.e., the extent to which TE and FS programmes succeed in retaining child labourers in the education system.

Many non-formal TE initiatives have been criticized for creating a second, inferior, education track for working children, and not acting as bridges to (re)entry into the formal system. While stand-alone non-formal education programmes may be appropriate for older, long-term drop-outs, there seems to be some consensus that the overarching emphasis of transitional education should be equipping children to enter and succeed in regular schooling. A critical review of the work and experiences that have led to this consensus and, eventually, a critical reappraisal of its main conclusion would be of interest. This could possibly lead to an assessment of the role of non-formal vis-à-vis the formal education system and to a clear identification of the relative roles of the two systems. It would be of interest to identify the situations in which experience and theory shows that the best interest of the children and youth is achieved without mainstreaming non-formal efforts in the formal education system (e.g. older children, children that have suffered severe physical or psychological health damages, children that need reintegration also from traumatic experiences like child soldiers).

Conclusion

The preceding sections provided a brief overview of research evidence concerning the interplay between education and child labour. It also identified areas where further research is needed to help guide policy towards the related goals of EFA and child labour elimination.

Evidence reviewed the impact of work on school attendance and performance underscored the constraint that child labour poses to achieving Education For All. This

evidence largely confirmed the conventional wisdom that child labour harms children's ability to enter and survive in the school system, and makes it more difficult for children to derive educational benefit from schooling once in the system. The evidence also suggested that these negative effects are not limited to economic activity but also extend to household chores, and that the intensity of work (in economic activity or household chores) is particularly important in determining the impact of work on schooling.

But beyond these general conclusions, many questions concerning the nature of the relationship between work involvement and education remain unanswered in the research literature. We need first of all more knowledge about the effect of work on school entry and survival. There is a specific need to open the "black box" of child work, and look more closely at the effect of different forms of work on enrolling and staying in school. For example, a lot can be potentially learned by looking at the factors underlying the large cross-country variation in terms of the ability of child labourers to combine school and work, and in particular by looking at the extent to which these differences are institutional or policy related. More research is also needed on learning achievement, and on how both school and work conditions affect the ability of working student to perform in the classroom.

Research questions of particular relevance for identifying forms of work most disruptive of schooling as well as for designing policies aimed at making schooling and (benign) work more compatible include the following:

- *Work setting and schooling*: the degree to which work performed within a family setting is less disruptive to schooling than work performed outside the family environment;
- *Work intensity and schooling*: the degree to which schooling is only compromised by work performed beyond a particular daily or weekly hours threshold (i.e., whether it is work *per se* or only work performing intensively that is detrimental to schooling);
- *Work type and schooling:* the extent to which certain types of children's productive activity by their nature are more damaging to school attendance and performance than others;
- *Interplay among work characteristics*: the relative importance of different work characteristics (setting, intensity, type, etc.) in influencing schooling attendance and performance, and the interplay among work characteristics;
- *Child age, work and schooling*: the degree to which work is more damaging to learning at younger ages;
- *Innate ability, work and schooling:* the extent to which a child is a poor student because s/he works, or alternatively works because s/he is a poor student; and
- *Cross-country variation in terms of how work affects schooling:* reasons for the large differences across countries in terms of the ability of working children to attend and perform in school.

Evidence reviewed in the preceding sections concerning the link between education provision and child labour pointed to the important role of inadequate schooling in keeping children out of the classroom and into work. This evidence indicated that both the school quality and school access can play an important role in household decisions concerning whether children study or work. But again, considerable further research is necessary before it is possible to go beyond the general statement that school access and school quality matter for child labour. Better information is needed regarding how access and quality (and their interaction) influence household decisions in order to identify the best mix between quality and access policy measures. It is also necessary to assess whether the main effect of school quality is in improved retention or higher rates of entry. The analysis of the effects of school quality requires better data, reflecting the main elements of school quality.

Areas of further research of particular relevance to identifying supply-side policies for reducing child labour and raising school attendance include the following:

- *Factors affecting the efficacy of improved schooling access*: reasons for the large cross-country variations in terms of how improved school access affects school attendance and child labour;
- *Measuring school quality*: developing proxy indicators reflecting the main elements of school quality, and using these indicators to provide a more complete picture of links between school quality and child labour;
- *Impact of access and quality interventions:* assessing the relative efficacy of access and quality interventions in order to formulate recommendations on the appropriate policy mix between access and quality;
- *School quality and retention*: the effects of school quality in retaining children in school and in avoiding drop-out, in view of preliminary fragmentary evidence suggesting that school quality might be more relevant in terms of retaining children in school rather in attracting them to it for the first time; and
- *Relative importance of "push" and "pull" factors*: the degree to which children are "pushed" into work by poor quality, irrelevant or inaccessible schools, or, alternatively, children are "pulled" from school and into work by household poverty or other economic motives.

The paper dealt with special transitional education (TE) and flexible schooling (FS) programmes as other important supply-side elements influencing child labour and school attendance outcomes in many national contexts. Information on transitional education and flexible schooling programmes unfortunately remains scarce, limiting the lessons that current TE and FS efforts offer in terms of which policy approaches are most effective or are best candidates for broad-scale replication. Further research is needed, *inter alia*, about the difference these programmes are making in reducing the exclusion from education of working children, about which and how many child labourers are being reached, and about why these programmes have for the most part been unable to expand

to scale. The role of non-formal education strategies generally in supporting national efforts towards EFA and child labour reduction needs to be assessed.

References

Cigno, A. and F.C. Rosati (2005): "The Economics of Child Labour", Oxford University Press.

Guarcello, L., Lyon S. and F.C. Rosati (2006): "Does School Quality Matter for Working Children?" *UCW forthcoming working paper.*

Gunnarsson V. Orazem P. and Sanchez M. (2006): "Child Labour and School Achievement in Latin America". *World Bank Economic Review;* Vol. 20, 1; pp. 31-54; January.

Heady C. (2000): "What is the Effect of Child Labour on Learning Achievement? Evidence from Ghana." *Innocenti Working Papers*, No. 79.

ILO/IPEC (2003): "Child Work, School Attendance and Performance: Case Study, Colombo." Gunawardena et al, September 2003.

_____ (2004a): "Brazil Child Labour and Education School Survey", Unpublished.

_____ (2004b): "Child Work, School Attendance and Performance in Kenya" unpublished.

_____ (2004c): "Impact of Child Work on School Attendance and Performance in Lebanon." Consultation and Research Institute. Unpublished.

_____ (2004d): "Light Work, Academic Performance and School Attendance of Children in Turkey". Unpublished, Ankara, May 2004.

ILO/IPEC and UCW Project (2005): "Impact of Children's Work on School Attendance and Performance: A Review of School Survey Evidence from Five Countries."

Orazem P. and Gunnarsson V. (2004): "Child Labour, School Attendance and Performance: A Review." Iowa State University, Department of Economics Working Papers Series # 04001.

Postlethwaite T. N. (2004): "What do International Assessment Studies Tell Us about the Quality of School Systems? Background Paper for EFA Global Monitoring Report 2005."

UCW (2003a): "Understanding Children's Work in Yemen." *Inter-Agency Report to the Government of Yemen;* Sana'a; March 2003.

_____ (2003b): "Understanding Children's Work in Morocco." *Inter-Agency Report to the Government of Morocco*, Rabat, March 2003.

_____ (2005a): "Towards Statistical Standards for Children's Non-Economic Work: A Discussion Based on Household Survey Data."

_____ (2005b): "Children's Work in Cambodia: A Challenge for Growth and Poverty Reduction." Inter-Agency Report to the Government of Cambodia, Phnom Penh, June 2005.

UNESCO (2005): "EFA Global Monitoring Report – The Quality Imperative." UNESCO, Institute for Statistics, 2005.

U.S. Department of Education (2000): "Monitoring School Quality: An Indicators Report." National Center for Education Statistics. Daniel P. Mayer, John E. Mullens, and Mary T. Moore. Washington, DC, 2000.

World Bank (2005): "Cambodia Education Quality For All." World Bank, Washington DC, January 2005.

Journal of Educational Planning and Administration
Volume XXII, No. 2, April 2008, pp. 153-177

Costs of Higher Education in Punjab
Levels, Patterns, and Efficiency Issues

Jaswinder Singh Brar*
Sukhwinder Singh*
Ranjit Singh Ghuman*

Abstract

The study primarily deals with the estimation of recurring cost specific to general higher education. It provides the level and composition of unit cost separately for rural and urban areas and for different modes of ownership, like government colleges, aided colleges, and self-financing unaided colleges. The overall recurring cost consists of around fifty sub-costs. Teachers' cost and administrative cost constitute the overwhelming proportion of the recurring cost. The relative share of non-salary cost was found to be low. Per unit recurring cost was higher in urban colleges compared to the rural ones. It was the highest in government colleges, followed by aided colleges and the lowest in private unaided colleges. The complex interplay of numerous sub-costs works as the baseline of cost drivers. The unit cost of education manifests strong association with average level of salary; strength of teaching staff, administrative staff and number of students; staff deployment practices; and teacher-students ratio. The efficiency analysis establishes that the unaided colleges are the most efficient, the aided colleges the least efficient, and the government colleges occupy the middle position. The study builds up a strong case for the massive involvement of public resources in order to ensure wider access and equity in higher education.

Introduction

In Punjab, as elsewhere also but in varying degree, higher education sector has rapidly acquired the strong distinction as being the most preferred site of market activism. Moreover, this sector in the state has been dealt with in such a manner that it has absorbed the new economic responses too fast and too far. Actually, under the cumulative pressure of the various market based processes, the very meaning and scope of rendering higher education has got altered. The revamping and unfolding of this sector started on a modest scale with the adoption of the New Education Policy 1986, and its revised version

* Department of Economics, Punjabi University, Patiala, Punjab-470002.
Email: ghumanrs@yahoo.co.uk; brar _jas@yahoo.co.in; sohi42pbi@yahoo.com

of 1990, and, got strong momentum under new economic dispensation particularly during the latter half of the 1990s and onwards (GOI, 1986 and 1990). The amazing fact is that the basic policy distinctions among the privatization, private participation, and public-private partnership have got blurred and fully assimilated in practice. As such, the education of all types and stages has been perceived, planned and delivered through a high-ended commercial mode under the hardcore market practices (GOP, 2002a). Moreover, in the absence of weak and non-functional regulatory mechanism, the commercialization or over-commercialization has come to stay as the ruling dictum in the education sector of the state.

In fact, the education situation in the state has started aggravating with the reluctance on the part of the state to shoulder the responsibility of providing funds to education on ever-sustained basis. The situation emerged both from the unhealthy budgetary support of the state and also from changed spending priorities (GOP, 2002b). This is abundantly clear and well reflected in the dwindling budgetary support to this sector (Brar, 1999). On the whole, the proportionate share of the education sector in the budgetary expenditure of the state declined systematically from 19.79 percent in the 1990-91 to 16.14 percent in 2001-02. Similarly, the share of university and the higher education in the state budget also declined from 2.86 percent to 1.47 percent in the corresponding years. Moreover, within the overall budget of the education sector, the share of university and higher education has declined from 14.48 percent to 9.10 percent in the respective years (Gill, Singh, and Brar, 2005). Further, over the period of twelve years, i.e. from 1990-91 to 2001-02, the budgetary expenditure on university and higher education has recorded a decelerated expansion from Rs. 72.19 crore to Rs. 197.80 crore at current prices. Consequently, on per student basis at constant prices (1993-94) during the above specified period, this sector experienced a negative trend of growth rate in the budgetary expenditure equivalent to 5.25 percent per annum (Ghuman, Singh, and Brar, 2005). Further, within higher education, the non-university sector (government colleges and government aided private colleges together) received Rs. 125.31 crore in 2001-02, against Rs. 56.53 crore in 1992-93. Similarly, in government aided privately managed colleges, apparently there seems to be an increase in grants-in-aid as its level rose from Rs. 29.35 crore in 1992-93 to Rs 72.01 crore in 2001-02 (MHRD, 2002). However, as per the grants-in-aid policy of 1979, the government was to meet 95 percent deficit of the salary budget (teaching and non-teaching) of the aided private colleges. The situation was comfortable till the early 1990s. However, with the introduction of cuts, squeezes, delays and adhocism in the release of the grants, the proportionate share of the government grants to aided private colleges declined to 65 percent.

In nutshell, within a short span of about a decade, higher education sector in Punjab witnessed a plethora of drastic changes. In fact, all components of this sector, both individually and collectively, experienced a chain of changes. At present, the higher education scenario puts forward a picture full of diversity. It is reflected in terms of number and duration of courses, curriculum designs, financing practices, ownership modes, locational dynamics, staff deployment practices, etc. The profitability happens to

be the sole determinant in all the deliberations and decisions pertaining to the higher education sector. This phenomenon is not only confined to pure private institutions, but has also gripped the state owned and state financially supported institutions. In government owned colleges, no regular appointment has been made during the last about one decade. Consequently, in the government colleges situated in the rural areas, semi-urban areas and small towns/cities, the number of non-regular teachers in many departments and courses has increased more than that of the regular ones. A large cadre of non-regular lecturers has emerged under various designations, such as adhoc, temporary, part-time basis, hourly basis, guest faculty, visiting faculty, etc.

This has seriously compromised the salary, working conditions and promotion avenues for this cadre. To cope up with the situation, majority of the institutions have introduced many self-financing and marketable courses of professional variety. Attempts have also been made to finance traditional courses with extra income earned from self-financing courses. The financing situation in the aided colleges has further aggravated with the shifting of two senior secondary classes (11^{th} and 12^{th}) from the domain of colleges to the senior secondary schools in the state. Actually these two classes, having a large number of students, comparatively generate more funds to the colleges. The aided colleges responded to the situation by opening up the non-aided schools attached to the college premises. Some of them introduced postgraduate courses to generate extra income and also to adjust the surplus staff in some subjects. The aided colleges have also established centers of distance education to generate some extra resources. The freezing of aided posts in aided colleges under the policy of rationalization of staff resulted in the termination of grants-in-aid received against these posts. On the other hand, the majority of government colleges are without principals and officiating ones are doing the jobs. As a result, a vast and large sized informal sector has emerged within the formal higher education sector.

The rising cost of supply of education along with the dwindling budgetary support gave a big jolt to the resource equilibrium at the level of actual providers of service. Consequently, a massive programme of internal resource mobilization has been cropped up. This includes enhancement of not only of the existing fees and funds, but also the imposition of many a newer types of fees, funds and charges. The fee structure became quite diversified with the provision of so called normal fee seats, paid seats and NRI/Foreign/Industry sponsored seats. This, in fact, has been the direct offshoot of the continuous attempts made by colleges, universities and even of regulating bodies to attain not only self-sufficiency in the resource generation but also higher level of commercial viability. It is noteworthy that in a typical university in the state, about 60 percent of revenue originates from non-government sources (Raikhy, 2003).

The pricing of direct educational and associated services such as examining, certification, recognition and affiliation, etc., resulted in the collection of more money from the students, i.e. the ultimate payers for availing of educational services. With this, some proportion of the funds collected by the colleges from the students got transferred to higher-level bodies dealing with this education. So, the complex interplay of such

processes resulted in three-tier fee structure in the state, viz. relatively lower in government colleges, moderately higher in aided private colleges and substantially higher in self-financed unaided private institutions. The prevalence of such a fee structure has strong bearing upon the distribution and flow of students among the three sets of institutions situated in the same location and area with over-crowding in some institutions and deficient enrolment in others.

As a direct consequence of reforms process, the entire gamut of operations in the education sector, across the board, is presently centered on profit generation as well as its maximization by giving effect to cost minimization and revenue enhancement. The profitability is the most active agent in overall educational provisioning and choice of course mix by the service suppliers. The centrality of costs and profits has become so obvious in market driven higher education set up. Nevertheless, a matter of great concern has also been emerging because the pricing of educational services either on the basis of high cost recovery or cost plus principle, involves the real danger of pricing out of non-affording but meritorious students (Ponnell and West, 2005). It is also held that higher education sector has become prone to financial malpractices and on the pretext of rising costs, the service providers, particularly of pure private variety, have been charging exorbitant fees and thus exploiting the situation to accumulate wealth. The ever-rising level of fees and funds has attracted attention in the recent past as it has serious implications for the already highly iniquitous nature of educational progress in the state (Brar, 2002; PHDR, 2004).

Thus, in the present study, a serious and scientific attempt has been made to examine the costs and associated aspects of higher education in a comprehensive manner. Therefore, the study examines in detail the various levels, components and sub-components of cost of education. The inter-comparison of the levels and composition of various components and sub-components of different costs is very helpful in understanding the process of cost formation across the various locational and ownership categories. Such an exercise draws its direct relevance in the context of determination of the fees and funds. Further, it assesses the overall resources requirements of the higher education sector in order to attain the desired level of enrolment and participation. In order to present a detailed picture of costs and associated issues of higher education, the paper, besides Section I on Introduction, is divided into five sections. Thus Section II provides in detail the issues related to data sources and methodology, Section III highlights the prominent characteristics of the sampled institutions. Section IV presents the main results of the level of recurring cost and its different components, Section V briefly deals with the cost-efficiency relationship, and Section VI sums up the major conclusions and emerging policy issues.

Research Design and Methodology

The main task of education sector is to produce high quality human resources. In fact, this is a great economic challenge as it involves providing of huge amount of resources to education sector. In economic literature, there has been strong theoretical and empirical rationale for public subsidies to attain desired educational goals (World Bank, 2000 and Tilak, 2004). The process of educational build-up in a country requires extremely measured managerial responses during all stages of input utilization. The overall cost of any economic activity is the direct result of internal efficiency of resource utilizations that has strong connection with total factor productivity (Tilak and Bhat, 1986). The resource flows and levels, peculiar to a specific activity matrix, together determine the cost of various services to the enterprises. Therefore, proper differentiation and specification of various costs involved in any production process is the pre-requisite for a comprehensive analysis of cost of education.

Cost of Education

The production of goods and services, with market as the principal anchor, entails cost. The production process goes on by continuous absorption of resources both material and human. The market value of produced output is profoundly connected with the market value of resources embodied in that output. Indeed, the dynamics of mutual interconnections between the input-market and that of output-market together influence the profitability of an enterprise. The minimization or more so optimization of the cost is an utmost important factor in decision-making of an entrepreneur/enterprise to produce goods and services.

The production, whether of goods or services, has been governed by the same underlying economic/business goals, norms and practices. The supply of services is different from supply of goods to the extent that in the case of former the production and consumption occurs simultaneously. The service provider and resulting service are actually indistinguishable from each other. Further, the production of a large number of single services, besides material inputs, requires input/s from persons more than one. It makes the cost analysis of providing services more complicated. And, it becomes further difficult when the final outcome of any service (like education) involves long time span along with large quantum of labour inputs.

The cost, being an inseparable element of economic activities, has direct relationship with the production or output. In typical economic sense, cost refers to all those expenditures, which an entrepreneur/enterprise makes in order to stay in the market. However, in literature related to costs, a distinction has generally been made between cost and expenditure. All the spendings made by any unit in supplying a particular service may not be the actual cost of that service because it may involve some amount of unproductive expenditure also. Therefore, cost as an economic component, encompasses all those unavoidable expenditures, which are badly needed in order to perform an economic activity of a specified level and quality. Moreover, expenditure can be

expressed only in monetary units, while costs can be expressed both in monetary and real or physical terms (Powar, et al, 1995; and Salim, 1997).

The cost of education as generic term embraces and conveys so much. It becomes relevant only in the specific context and purpose. From macro viewpoint, cost of education can be understood as the total value of resources deployed by households, government and private entities in acquiring/provisioning of education. The viewing and comparing of costs on such basis shed enough light about the relative spending priorities in any politico-administrative unit. However, it serves limited purpose from the angle of cost efficiency of various economic agents involved in education.

The economic conception of cost goes beyond the accounting exercise. In typical accounting sense, it refers to all those explicit costs (i.e. payments and charges) extended by an enterprise to outside suppliers of various productive factors in order to supply specified amount of goods and services. These are, in fact, direct costs to a concern, which it takes into account, while making business decisions of providing service. However, economic cost of production, besides accounting costs, also involves the opportunity costs and environmental costs. These are collectively being described as social costs associated with an economic activity. The social costs are extremely relevant so far as the issue of relative efficiency of alternative resource use is concerned. The present study fits neatly in the framework of producer's accounting costs. Furthermore, the study is not only concerned with consumer's costs, alternatively known as private costs, i.e. the costs incurred by households (parents or students or both) in acquiring education (Chalam, 1978; Mingat, 2003; and Garg, 1985). Thus, technically speaking, the present study is confined to and deals with producers' accounting costs. Hence, the issue of analysis of cost of education has been approached and explored from such a standpoint.

In fact, the cost of education consists of two components, i.e. Non-Recurring Cost and Recurring Cost. The sum of these two components of cost is called the Institutional Cost, which is actually the producers' accounting cost. Thus, the Institutional Cost refers to all those costs, which are needed to create educational delivery facilities. It means all those expenditures which are required or made to establish and run an educational institution, are the institutional costs. Thus, the ambit of institutional costs is quite wider and refers to the monetary cost of all the deployed factors of production. The measurement of Non-Recurring Cost is difficult as it involves plethora of conceptual and empirical controversies. Moreover, opinion is sharply divided over the charging of capital/non-recurring costs directly from the students. It is viewed that charging of capital costs from the students would tantamount to ruthless privatization/commercialization of higher education. Economists too, are not inclined much in favour of charging cost of investment made in the distant past. They describe such costs of investment as the historical costs or sunk costs and argue for the adoption of the formula of 'let bygones be bygones'. It is also held that there is no rationality in charging of capital costs in case of public utilities.

The study is confined to the estimation of per unit recurring cost. It involves: specification of recurring cost and that of production of educational institutions. As a general rule, the things, which got consumed within a year, are included in the Recurring Cost. It refers to those costs, which are incurred every year and have strong relationship with the input(s) or output(s) of the institution. These are also known as variable or direct costs. So far as the production of educational institutions is concerned, the total enrolment (students on roles) of students has been treated as the educational output. It is also suggested that only the successful pass-outs be considered as output of educational enterprises. The non pass-outs are treated as wastage of efforts and resources. However, such types of students also consume the resources and constitute cost to the producers. Noticeably, the educational capacity has been created keeping in view the total intake. Furthermore, the value of product by any enterprise is decided by taking into account the 'wastage component' also. So, the various types of recurring costs have been divided by student enrolment to arrive at unit cost (Bedi, 1994).

The Process of Sampling

Keeping in view the diversity and size of higher education sector of the state, it has been decided to select limited number of institutions for an in-depth study by the process of stratified random sampling. For such an exercise, the preparation of an all-inclusive sampling frame is the foremost requirement. In all, the universe of higher education institutions has been stratified at four levels: ownership, age of institution, location and affiliation. The study pertains to the colleges/institutions affiliated with various universities, as the state has no autonomous colleges. The general education colleges in the state have been affiliated to three universities, viz. Punjabi University, Patiala; Guru Nanak Dev University, Amritsar; and Panjab University, Chandigarh. Further, these universities have their respective well-demarcated, statutorily created district-wise affiliation jurisdictions (Mittar, Singh, and Brar, 2002).

During the academic year 2003-04, the general education colleges (223 in number) were of three types, i.e. government owned and operated colleges (popularly known as government colleges), government aided but privately controlled and managed colleges (popularly called aided colleges), and unaided but privately controlled and managed colleges (popularly known as unaided private colleges). The first stage of stratification was done on the basis of ownership and management patterns. Out of 223 colleges providing general education, 50 were government colleges (22.42 percent), 124 were government aided private colleges (55.61 percent) and 49 were unaided private colleges (21.97 percent).

The second stage of stratification was made on the basis of age of institutions. After testing various permutations and combinations, and also by keeping in view the state government policies, the institutions in all the above three categories were divided into five age-groups. First age-group included the colleges established during the last five years, i.e. 2000 to 2004; second age group contained the colleges established during the previous ten years, i.e. 1990 to 1999; third age-group consisted colleges started during the

period between 1980 and 1989; fourth age-group comprised of the colleges established during 1970 to 1979; and the fifth age-group included the colleges established on or before 1969. In this way, institutions were divided into five age groups, i.e. 5 years age, 15 years age, 25 years age, 35 years age, and above 35 years age. The majority of colleges, numbering 167 (74.89 per cent), were established before 1980. The unaided private colleges got established during the age-group II and I. In fact, the aided private colleges came on scene during 1970-1979. Further, the colleges established on or before 1969 have been offering the postgraduate courses, and younger institutions are confined to undergraduate courses.

TABLE 1
Distribution of General Education Colleges in Punjab by Ownership, Age, Location & Affiliation Patterns, 2003-04

University	*Ownership Pattern*	*G -V Above 35 Years*	*G -IV 35 Years*	*G -III 25 Years*	*G -II 15 Years*	*G -I 5 Years*	*Total*
Rural Colleges							
Punjabi University	Government	1	0	0	0	2	3
	Private Aided	2	5	1	0	0	8
	Private Un-Aided	0	1	0	2	5	8
Panjab University	Government	3	1	1	1	0	6
	Private Aided	5	2	0	0	0	7
	Private Un-Aided	0	1	0	7	8	16
Guru Nanak Dev University	Government	0	1	1	0	0	2
	Private Aided	1	8	0	0	0	9
	Private Un-Aided	0	0	1	2	2	5
Total Rural Colleges		12	19	4	12	17	64
Urban Colleges							
Punjabi University	Government	14	1	3	0	0	18
	Private Aided	14	3	0	[illegible]	0	17
	Private Un-Aided	0	2	1	2	1	6
Panjab University	Government	7	1	1	0	0	9
	Private Aided	19	20	0	0	0	39
	Private Un-Aided	0	1	1	2	2	6
Guru Nanak Dev University	Government	9	1	0	2	0	12
	Private Aided	29	14	1	0	0	44
	Private Un-Aided	0	1	0	5	2	8
Total Urban Colleges		92	44	7	11	5	159
Grand Total (Rural +Urban)		104	63	11	23	22	223

Note: The various age-groups are as follows: G-I (2000-04); G-II (1990-99); G-III (1980-89); G- IV (1970-79); and G-V (on or before 1969)

Source: 1. *Handbook of Information (Admission Prospectus)*, Universities of Punjab, 2003-04.
2. *Directory of Colleges*, UGC, New Delhi, July 2004.
3. *Office of Director Public Instructions (Colleges)*, Punjab (Chandigarh)
4. *Office of Dean, College Development Council*, (Various Universities of Punjab)
5. *Counseling Guide-Cum-Information Brochures*, related to various state level tests issued by, respective universities of the state, 2004

After stratifying on the basis of ownership and age, the location of institutions (rural or urban) as a criterion was adopted at the third stage of stratification. Thus, ownership and age-group based categories (15 in numbers) have been divided further into rural and urban categories. The last stage of stratification (fourth stage) was effected on the basis of university specific affiliation. This has ultimately stratified the whole universe into 90 categories, reported in Table 1. It shows the universe of general education colleges in a disaggregated manner, which became the ultimate framework for selection of sampling units.

Keeping in view the specific objectives and scope of the study, it has been decided to keep the sample size at five percent of the universe. At this probability ratio, 12 colleges were selected randomly. Attempt has been made to give balanced representation to various strata based on the ownership, age, location and affiliation patterns. Thus, in all, seven combinations (with number of colleges in each category given in bracket) were chosen as follows: rural unaided colleges aged 5 years (15 colleges); rural unaided colleges aged 15 years (11 colleges); urban unaided colleges aged 15 years (9 colleges), urban aided colleges aged 35 years (15 colleges); urban aided colleges aged 35 years (37 colleges), urban government colleges aged above 35 years (30 colleges) and urban aided colleges aged above 35 years (62 colleges). The college combinations with very negligible weightage have been excluded, such as government colleges and aided colleges aged 5 years, both in rural and urban areas, and all colleges falling in age-group III, etc. Ultimately, from among the various selected combinations, twelve colleges were selected randomly as follows: rural unaided colleges aged 5 years (one); rural unaided private colleges aged 15 years (two); urban unaided private colleges aged 15 years (one), rural aided colleges aged 35 years (one), urban aided colleges aged 35 years (two); urban government colleges aged above 35 years (two) and urban aided colleges aged above 35 years (three). Thus, the data were collected from the selected colleges through a well-structured and pre-tested questionnaire. And, the study provides the actual level of recurring costs pertaining to the academic year 2003-04.

Sampled Institutions: The Prominent Characteristics

Since the levels and cost structures of higher education depends upon many factors, especially the qualitative of physical infrastructure, teaching faculty, administrative staff, students enrolments, etc. (Duncombe, et al, 1995), it is interesting to examine the most prominent features of staff patterns and student enrolments amongst the sampled colleges. The analysis of data in Table 2 reveals that out of total teaching staff of sampled institutions, 82.15 percent teachers were working in urban colleges; and ownership-wise, 60.83 percent in aided colleges, 24.26 percent in government colleges and the rest 14.91 percent in unaided colleges. Regarding the nature of appointment, 69.84 percent were working on regular/permanent basis. As expected, such proportion was the highest in government colleges (81.43 percent) and the lowest in unaided private colleges (45.35 percent). The teachers with doctorate degrees constituted 16.29 percent of the total strength of teaching faculty. Their proportion was the highest in government colleges

(24.29 percent) and the lowest in unaided private colleges (6.98 percent). Similarly, out of total administrative staff, 81.78 percent were working on regular/permanent basis with the highest share in government colleges (94.53 percent) and the lowest in unaided private colleges (56.73 percent). Further, out of total students enrolled in sampled colleges, the share of Scheduled Castes (SC) students was 10.33 percent; a higher proportion in rurally located colleges (19.45 percent) than their urban counterparts (8.80 percent). On the basis of ownership, SC students' proportion was higher in unaided private colleges (21.28 percent), followed by government colleges (13.96 percent), and aided colleges (5.74 percent).

TABLE 2
Distribution of Teaching Staff, Administrative Staff, and Students in General Education Colleges (Sampled Institutions)

Staff and Students	*Type of College*					
	Rural	*Urban*	*Total*	*Govt.*	*Aided*	*Un-aided*
Total Teachers	103 (17.85)	474 (82.15)	577 (100)	140 (24.26)	351 (60.83)	86 (14.91)
Regular/Permanent (%)	54.37	73.21	69.84	81.43	71.23	45.35
Ph.D. Holders (%)	8.74	17.93	16.29	24.29	15.38	6.98
Total Administrative Staff	117 (24.79)	355 (75.21)	472 (100)	128 (27.12)	240 (50.85)	104 (22.03)
Regular/Permanent (%)	61.54	88.45	81.78	94.53	85.83	56.73
Total Students Enrolled	2134 (14.37)	12716 (85.63)	14850 (100)	4772 (32.13)	8217 (55.34)	1861 (12.53)
Scheduled Castes (%)	19.45	8.8	10.33	13.96	5.74	21.81
Girls (%)	59.79	48.55	50.16	77.16	31.39	65.42
Teacher-Student Ratio	1 : 26	1 : 21	1 :27	1 : 34	1 : 23	1 : 22

Figures in parentheses are percentages.
Source: Primary Survey.

Girl students constituted 50.16 percent of the total strength of students. Their share was the highest in government colleges (77.16 percent) and the lowest in aided private colleges (31.39 percent). The teacher-student ratio, on the whole, worked out to be one teacher for 27 students. It was higher in rural colleges (26 students) compared to the urban ones (21 students). Moreover, it was higher in government colleges (34 students), followed by aided private colleges (23 students), and unaided private colleges (22 students).

Regarding the course-wise distribution of students (Table 3), an overwhelming proportion of students (91.52 percent) were enrolled in various undergraduate courses and the rest were (8.48 per cent) in post-graduate courses. Within the category of undergraduate courses, three-year BA programme absorbed 63.25 percent of the students. In post-graduate category, 53.97 percent students were admitted in MA programme. Interestingly, the proportion of girls was higher by about ten percentage points than that of boys in both BA and MA courses. Another noteworthy fact is that the sampled institutions over the period had diversified their study programme by introducing B.Sc. programme in newer subjects of computer science, biotechnology, electronic media, information technology, economics, etc. The existing B.Com course was supplemented with B.Com (Professional). Similarly, at post-graduate level, the sampled institutions were offering around eighteen types of courses pertaining to arts, social sciences, commerce, pure sciences and technology. However, by excluding 10+2 courses as being school level courses from the category of under-graduate courses, it is apparent that the substantial majority of students (71.88 percent) were enrolled in BA degree, indicating thereby a small shift in the enrolment pattern in favour of undergraduate level professional and job-oriented courses.

TABLE 3

Course-Wise Distribution of Students in General Education (Sampled Institutions)

S. No.	*Course*	*Total Students*			*Percentage Share*		
		Boys	*Girls*	*Total*	*Boys*	*Girls*	*Total*
(a)	Undergraduate						
1	10+ 2	868	764	1632	12.50	11.50	12.01
2	BA	4062	4533	8595	58.50	68.21	63.25
3	B.Com.	992	406	1398	14.29	6.11	10.29
4	B.Sc.(all)	693	771	1464	9.98	11.60	10.77
5	BCA	233	99	332	3.36	1.49	2.44
6	BMIT	55	64	119	0.79	0.96	0.88
7	BBA	34	6	40	0.49	0.09	0.29
8	B.A. (Hons.)	7	3	10	0.10	0.05	0.07
	Total (a)	6944 (93.8)	6646 (89.22)	13590 (91.52)	100.00	100.00	100.00
(b)	Post-graduate						
9	PG Diplomas	66	72	138	14.44	8.97	10.95
10	MA	219	461	680	47.92	57.41	53.97
11	M. Sc.	75	141	216	16.41	17.56	17.14
12	M.Com.	74	115	189	16.19	14.32	15.00
13	MMC	23	14	37	5.03	1.74	2.94
	Total (b)	457 (6.17)	803 (10.78)	1260 (8.48)	100.00	100.00	100.00
	Grand Total (a+b)	7401 (100.0)	7449 (100.0)	14850 (100.0)			

Note: Figures in brackets indicate percentage shares in grand total.
Source: Primary Survey

Per Unit Cost of Higher Education

An assessment of the survey data points out that the sampled institutions have incurred more than fifty types of recurring costs while imparting higher education. On the basis of their nature and weight, these costs have been clubbed into nine broad components: (1) Teachers' Cost; (2) Administrative Cost; (3) Repair and Maintenance; (4) Electricity; (5) Consumables; (6) Communication and Related Services; (7) Extra-Mural Activities; (8) Scholarships & Concessions; and (9) Miscellaneous.

Further, each component of the recurring cost (except Electricity Cost) consists of a number of sub-components also. The level of per unit recurring costs and their different proportions are presented at six levels: overall, two locational categories (rural and urban), and three types of ownership categories (government colleges, aided private colleges, and unaided private colleges).

Unit Cost: Its Level and Components

Per unit recurring cost levels and their proportions are given in Table 4. The overall per unit annual recurring cost was Rs. 13,017.76 during 2003-04. In rural area colleges, it was Rs. 10,117.81 and in urban colleges, it was Rs. 13,505.77. On the ownership basis, per unit overall recurring cost was the highest in aided private colleges (Rs. 14,600.10), followed by government colleges (Rs. 12,052.51), and the lowest in unaided private colleges (Rs. 8,506.72). The break-up of cost into various components highlights very interesting features of cost flows. Teachers' cost constituted the dominant proportion in all types of ownership and locational categories. Among the ownership categories, its share varied between 53.40 percent and 67.49 percent. The Administrative Cost, the second highest component, constituted between 18.16 percent and 33.22 percent of unit cost.

Further, these two costs (Teachers' Cost and Administrative Cost) together constituted between 71.78 percent and 91.98 per cent of the recurring cost. Thus, the salary of teaching, administrative, supporting and technical staff determines substantially the overall level of recurring cost. The share of rest of the cost components in overall was as follows: Repair and Maintenance (2.27 percent), Electricity (1.64 percent), Extra Mural Activities (1.16 percent), Consumables (0.92 per cent), Communication and Related Services (0.67 percent), Scholarships and Concessions (1.58 percent), and Miscellaneous (1.50 percent). It means non-salary components constituted a small proportion of recurring cost.

The close perusal of data shows that per unit Teachers' Cost was higher in urban institutions than those in rural institutions, i.e. Rs. 8,677.29 and Rs. 5,986.44 respectively. Per unit Teachers' Cost was the highest in aided private colleges (Rs. 9,853.35), followed by government colleges (Rs. 7,058.34) and the lowest in unaided private colleges (Rs. 4,542.72). Actually, this has been the result of three factors, viz. the difference in salary levels, teacher-student ratios, and proportion of non-regular staff to regular staff. From

Table 5, it is clear that per teacher salary was substantially higher in government colleges and aided colleges than that of unaided private colleges.

TABLE 4
Per Unit Recurring Cost of General Education in Punjab by Location & Ownership, 2003-04

(Figures in Rupee)

Cost Component	*Type of College*					
	Overall	*Rural*	*Urban*	*Govt.*	*Private Aided*	*Private Unaided*
Teachers Cost	8289.68 (63.68)	5986.44 (59.17)	8677.29 (64.25)	7058.34 (58.57)	9853.35 (67.49)	4542.72 (53.40)
Administrative Cost	3460.61 (26.58)	1836.84 (18.16)	3733.84 (27.65)	4003.38 (33.22)	3574.91 (24.49)	1563.68 (18.38)
Electricity	213.13 (1.64)	338.94 (3.35)	191.96 (1.42)	141.87 (1.18)	218.57 (1.50)	372.38 (4.37)
Repair & Maintenance	295.35 (2.27)	87.89 (0.87)	330.27 (2.45)	461.65 (3.83)	253.01 (1.73)	56.42 (0.66)
Extra Mural Activities	151.38 (1.16)	498.83 (4.93)	92.91 (0.69)	50.92 (0.42)	124.50 (0.85)	527.67 (6.20)
Consumables	119.33 (0.92)	266.01 (2.63)	94.64 (0.70)	25.15 (0.21)	137.28 (0.94)	281.03 (3.31)
Communication & Related Services	87.54 (0.67)	252.45 (2.49)	59.79 (0.44)	30.39 (0.25)	80.81 (0.55)	263.84 (3.10)
Scholarships & Concessions	205.93 (1.58)	497.90 (4.92)	156.71 (1.16)	223.81 (1.86)	122.06 (0.84)	529.82 (6.23)
Miscellaneous, etc.	194.81 (1.50)	351.57 (3.48)	168.36 (1.25)	57.00 (0.47)	235.49 (1.61)	368.62 (4.34)
Total	13017.76 (100.00)	10117.81 (100.00)	13505.77 (100.00)	12052.51 (100.00)	14600.10 (100.00)	8506.72 (100.00)

Note: Figures in parentheses are percentage shares.
Source: Primary Survey.

Further, the proportion of non-regular staff was quite on higher side in case of unaided colleges than that in government colleges and aided colleges. In case of unaided colleges, the strength of non-regular teachers was more than that of regular ones. Through such practices of non-regular modes of appointments, the unaided institutions succeed in cutting down the salary costs. So far the teacher-student ratio is concerned; it was higher in case of government colleges than that of aided colleges and unaided private colleges.

Thus, the interplay of above specified three factors generate differential levels of per unit costs across the different ownership categories of the colleges.

TABLE 5
Per Teacher's Salary in General Education According to Ownership and Location (2003-04)

(Figures in Rupee)

Ownership/ Location	*Ratio of Non-regular Teachers to Regular Teachers*	*Per Teacher's Salary*
Overall	1 : 2.32	213347.86
Rural	1 : 1.19	124317.70
Urban	1 : 2.73	232694.08
Government	1 : 4.38	240588.73
Aided	1 : 2.48	230669.46
Unaided	1 : 0.83	98305.98

Source: Primary Survey.

Unit Cost: Its Sub-components

Tables 6 to 13 provide information related to various sub-components of unit cost. In case of per unit overall Teachers' Cost (Table 6), faculty-wise share of various sub-components was as follow: social sciences (23.92 percent), sciences (19.68 percent), commerce (6.06 percent), languages (27.84 percent) and others (22.50 percent). The others include computer science, physical education, music, folk art and culture, fine arts, textile and clothing, dance, home science, etc. Further, the location specific view of unit cost throws much light about the nature of courses in rural and urban settings. Social sciences have comparatively absorbed the larger proportion of per unit Teachers Cost in rural areas (67.36 percent) than in urban areas (18.87 percent). Sciences constituted 4.39 percent in rural areas and 21.46 percent in urban areas. Furthermore, government colleges spend proportionately more on social sciences (45.93 percent) than the aided private colleges (7.89 percent). Interestingly, unaided private colleges' were spending almost exclusively on the social sciences and languages teachers, indicating very less emphasis on new courses.

TABLE 6

Faculty-wise Per Unit Teachers Cost in General Education Colleges by Location & Ownership, 2003-04

(Figures in Rupee)

Name of Faculty	*Type of College*					
	Overall	*Rural*	*Urban*	*Govt.*	*Private Aided*	*Private Unaided*
Social Sciences	1982.69 (23.92)	4032.26 (67.36)	1637.76 (18.87)	3241.60 (45.93)	777.41 (7.89)	4076.30 (89.73)
Sciences	1631.59 (19.68)	263.21 (4.39)	1861.89 (21.46)	1465.03 (20.76)	2097.85 (21.29)	-* -
Commerce	502.01 (6.06)	22.44 (0.37)	582.72 (6.72)	243.08 (3.44)	760.25 (7.72)	25.79 (0.57)
Languages	2307.94 (27.84)	1177.19 (19.67)	2498.21 (28.79)	2108.63 (29.87)	2853.35 (28.96)	410.53 (9.04)
Others	1865.44 (22.50)	490.88 (8.20)	2096.72 (24.16)	0.00 (0.00)	3364.49 (34.15)	30.09 (0.66)
Total	8289.68 (100.00)	5986.44 (100.00)	8677.29 (100.00)	7058.34 (100.00)	9853.35 (100.00)	4542.72 (100.00)

* No private unaided colleges have the provision for science education.
Source: Primary Survey.

From the sub-components of Administrative Cost (Table 7), it is clear that in the case of its overall distribution, the large proportion gets absorbed by the salary related to three segments, viz. office staff (27.64 percent), labs staff (28.31 percent) and other employees (33.16 percent). The other employees include the low-paid persons such as mechanics, security guard, gardener, sweeper, plumber, electrician, girl attendant, etc. The proportionate spending on rest of the sub-components was as follow: library (8.69 percent), sports (3 percent), hostel (0.88 percent), health centre (0.35 percent) and transport (0.85 percent). On location basis, the proportionate spending was higher related to office staff in rural areas (57.02 percent) than that in urban areas (25.20 percent). In the latter, the proportionate spending was tilted more towards labs (30.43 percent). Ownership-wise, the labs constituted relatively more proportion in government colleges (51.84 percent) compared to aided private colleges (15.39 percent). In case of unaided private colleges, the salaries related to office and transport staff constituted a substantial proportion of resources (73.33 percent). Such type of colleges was found to be spending very less in proportionate terms on the items such as labs, sports, hostels, health centre, etc.

TABLE 7
Component-Wise Per Unit Administrative Cost in General Education by Location & Ownership, 2003-04

(Figures in Rupee)

Component	*Type of College*					
	Overall	*Rural*	*Urban*	*Govt.*	*Private Aided*	*Private Unaided*
Office	956.35	1047.69	941.01	689.49	1114.64	941.43
	(27.64)	(57.02)	(25.20)	(17.78)	(31.18)	(60.22)
Library	300.57	121.55	330.69	315.06	328.59	139.71
	(8.69)	(6.62)	(8.86)	(7.82)	(9.19)	(8.94)
Labs	979.72	50.49	1136.10	2089.32	550.20	31.17
	(28.31)	(2.75)	(30.43)	(51.84)	(15.39)	(1.98)
Sports	103.85	36.47	115.19	133.36	100.77	41.91
	(3.00)	(1.99)	(3.09)	(3.31)	(2.82)	(2.68)
Health Centre	12.21	44.41	6.81	0.00	10.59	51.05
	(0.35)	(2.41)	(0.18)	(0.00)	(0.29)	(3.25)
Transport	29.48	178.12	4.44	0.00	6.82	204.73
	(0.85)	(9.71)	(0.12)	(0.00)	(0.19)	(13.11)
Others	1078.43	358.11	1199.60	776.14	1463.43	153.68
	(31.16)	(19.50)	(32.13)	(19.39)	(40.94)	(9.83)
Total	3460.61	1836.84	3733.84	4003.38	3574.91	1563.68
	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)

Figures in parentheses are percentages.
Source: Primary Survey.

Within per unit Repair and Maintenance Cost, a very higher proportion was spent on the buildings (77.53 percent), followed by furniture (10.86 percent), equipments (10.49 percent) and transport (1.12 percent). In rural areas, the highest proportion was consumed by the furniture (49.05 percent), whereas in its urban areas, the buildings consumed about 80 percent of per unit Repair and Maintenance Cost. The repair and maintenance of buildings dominated by cornering more resources in proportionate terms in the case of government colleges (85.74 percent) and aided private colleges (72.07 percent), whereas the furniture absorbed 86.66 percent in unaided private colleges (Table 8).

TABLE 8
Component-Wise Per Unit Repair & Maintenance Cost in General Education by Location & Ownership, 2003-04

(Figures in Rupee)

Components	Type of College					
	Overall	Rural	Urban	Govt.	Private Aided	Private Unaided
Buildings	229.02	15.90	264.89	395.85	182.30	7.52
	(77.53)	(18.13)	(80.19)	(85.74)	(72.07)	(13.34)
Furniture	32.05	43.01	30.21	18.44	36.27	48.90
	(10.86)	(49.05)	(9.15)	(3.97)	(14.34)	(86.66)
Equipment	30.98	28.99	31.39	47.57	28.36	0.00
	(10.49)	(32.82)	(9.49)	(10.29)	(11.23)	(0.00)
Transport	3.30	0.00	3.85	0.00	5.96	0.00
	(1.12)	(0.00)	(1.17)	(0.00)	(2.35)	(0.00)
Total	295.35	87.89	330.27	461.65	253.01	56.42
	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)

Figures in parentheses are percentages.
Source: Primary Survey.

TABLE 9
Component-Wise Per Unit Extra Mural Activities Cost in General Education by Location & Ownership, 2003-04

(Figures in Rupee)

Components	Type of College					
	Overall	Rural	Urban	Govt.	Private Aided	Private Unaided
Sports (College)	48.42	256.66	13.37	1.68	19.72	295.00
	(31.96)	(51.43)	(14.36)	(3.30)	(15.79)	(55.88)
NCC/NSS	8.89	18.23	7.32	0.00	11.32	20.96
	(5.88)	(3.64)	(7.90)	(0.00)	(9.12)	(3.95)
Cultural/YW	46.46	109.86	35.80	26.61	45.27	102.63
	(30.69)	(22.00)	(38.55)	(52.26)	(36.39)	(19.42)
Prize Distribution	32.39	114.54	18.57	7.96	29.09	109.62
Convocation	(21.37)	(22.93)	(19.97)	(15.64)	(23.34)	(20.74)
Excursion	6.60	0.00	7.71	14.67	3.41	0.00
	(4.36)	(0.00)	(8.30)	(28.80)	(2.74)	(0.00)
Any Other	8.69	0.00	10.14	0.00	15.70	0.00
	(5.74)	(0.00)	(10.92)	(0.00)	(12.61)	(0.00)
Total	151.38	498.83	92.91	50.92	124.50	527.67
	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)

Figures in parentheses are percentages.
Source: Primary Survey.

In case of Extra Mural Activities (Table 9), the three sub-components, namely, sports, cultural/youth welfare and prize distribution/convocation comprised 84.02 percent of per unit cost. In rural areas, sports' share was the highest (51.43 percent); and in urban areas, the cultural/youth welfare had the maximum share (38.55 percent). The different sub-components dominate in different ownership categories. It was sports in unaided private colleges (55.88 percent) and cultural/youth welfare in government colleges (52.26 percent) and aided private colleges (36.39 percent).

Table 10 reveals that in the case of consumables, the three sub-components, namely labs, sports, and printing/stationery form the highest proportionate cost across the locational and ownership categories. The proportionate share of the cost of rest of items, such as library, teaching aids, hostel/college medicines and others was comparatively on the very lower side across all types of colleges.

TABLE 10
Component-Wise Per Unit Consumable Items Cost in General Education by Location & Ownership, 2003-04

(Figures in Rupee)

Components	*Type of College*					
	Overall	*Rural*	*Urban*	*Govt.*	*Private Aided*	*Private Unaided*
Library	4.44	13.56	2.99	0.42	4.38	15.58
	(3.74)	(5.01)	(3.15)	(1.50)	(3.19)	(5.45)
Labs	41.89	21.97	45.24	14.67	63.41	16.66
	(35.12)	(8.30)	(47.81)	(58.41)	(46.21)	(5.86)
Printing/	48.55	157.55	30.13	5.24	46.85	167.11
Stationery	(40.67)	(59.29)	(31.86)	(20.79)	(34.13)	(59.35)
Sports	16.09	40.21	12.04	2.10	17.65	45.14
	(13.50)	(15.19)	(12.70)	(8.32)	(12.86)	(16.06)
Teaching aids-	3.10	4.68	2.83	2.51	3.04	5.37
Chalks, Charts	(2.61)	(1.76)	(3.02)	(9.56)	(2.20)	(1.91)
College	1.35	7.01	0.39	0.00	0.61	8.06
(Medicine)	(1.16)	(2.70)	(0.42)	(0.00)	(0.45)	(2.94)
Hostel	0.34	2.34	0.00	0.00	0.00	2.69
(Medicine)	(0.28)	(0.88)	(0.00)	(0.00)	(0.00)	(0.96)
Others	3.50	18.23	1.02	0.42	1.34	20.96
	(2.92)	(6.87)	(1.04)	(1.42)	(0.96)	(7.48)
Total	119.33	266.01	94.64	25.15	137.28	281.03
	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)

Figures in parentheses are percentages.
Source: Primary Survey.

Similarly, in the component named Communication and Related Services, the two sub-components (fuel bill, and postage, phone, telex, etc.) dominate in the proportionate terms, together constituting 87.47 percent share in this category. The next two positions

were occupied by water bill and gas bill. In rural colleges, the fuel bill (73.05 percent) and in urban colleges, the postage, phone, telex, etc., dominated (56.00 percent). The fuel bill constituted as high as 72.70 per cent in case of unaided private colleges (Table11).

TABLE 11
Component-Wise Per Unit Cost of Communication and Related Services in General Education by Location & Ownership, 2003-04

(Figures in Rupee)

Component	*Type of College*					
	Overall	*Rural*	*Urban*	*Govt.*	*Private Aided*	*Private Unaided*
Water Bill	4.18 (4.75)	0.00 (0.00)	4.88 (8.12)	4.19 (13.91)	5.11 (6.25)	0.00 (0.00)
Gas Bill	6.80 (7.79)	5.14 (2.09)	7.08 (11.84)	0.00 (0.00)	10.95 (13.55)	5.91 (2.30)
Fuel Bill	38.86 (44.40)	184.20 (73.05)	14.40 (24.05)	7.54 (24.84)	22.39 (27.75)	191.83 (72.70)
Postage, Phone, Telex etc.	37.71 (43.07)	62.65 (24.86)	33.51 (56.00)	18.65 (61.25)	42.35 (52.45)	66.09 (25.00)
Total	87.54 (100.00)	252.45 (100.00)	59.79 (100.00)	30.39 (100.00)	80.81 (100.00)	263.84 (100.00)

Figures in parentheses are percentages.
Source: Primary Survey.

TABLE 12
Component-Wise Per Unit Scholarships & Concessions Cost in General Education by Location & Ownership (2003-04)

(Figures in Rupee)

Component	*Type of College*					
	Overall	*Rural*	*Urban*	*Govt.*	*Private Aided*	*Private Unaided*
Value of Scholarships/ Stipends Granted	104.78 (50.89)	86.02 (17.23)	108.02 (68.90)	166.60 (74.44)	78.01 (63.93)	64.48 (12.14)
Value of Fee Concession/ Freeships Granted	84.44 (41.02)	409.54 (82.25)	29.74 (18.97)	25.15 (11.23)	33.22 (27.24)	462.65 (87.29)
Expenditure Incurred on Students (other than Players)	16.63 (8.09)	2.81 (0.52)	19.04 (12.13)	32.06 (14.33)	10.83 (8.84)	3.22 (0.56)
Total	205.93 (100.00)	497.90 (100.00)	156.71 (100.00)	223.81 (100.00)	122.06 (100.00)	529.82 (100.00)

Figures in parentheses are percentages.
Source: Primary Survey.

Further, the scholarships/stipends constituted very high proportion in their respective components across all the ownership and location categories, except the rural colleges and unaided private colleges (Table 12) where the fee concessions/other freeships constituted proportionately a higher cost in rural (82.25 percent) and unaided private colleges (87.29 percent).

TABLE 13
Component-Wise Per Unit Miscellaneous/Contingencies Cost in General Education by Location & Ownership (2003-04)

(Figures in Rupee)

Components	*Type of College*					
	Overall	*Rural*	*Urban*	*Govt.*	*Private Aided*	*Private Unaided*
Direction & Inspection by University or Other Bodies	9.16 (4.69)	16.83 (4.72)	7.87 (4.67)	0.00 (0.00)	12.17 (5.17)	19.34 (5.18)
Course Affiliation Fee	12.39 (6.34)	21.97 (6.25)	10.78 (6.38)	1.05 (1.84)	16.06 (6.80)	25.26 (6.85)
Affiliation Continuation Fee	3.84 (1.95)	14.96 (4.25)	1.97 (1.15)	0.00 (0.00)	3.77 (1.58)	13.97 (3.79)
TA/DA Paid to Experts on Selection Committee	8.01 (4.12)	7.01 (1.99)	8.18 (4.87)	0.00 (0.00)	12.66 (5.39)	8.06 (2.19)
TA/DA Paid to Team In Charges	18.52 (9.52)	2.81 (0.83)	21.16 (12.58)	3.14 (5.53)	30.91 (13.14)	3.22 (0.91)
Any Other TA/DA Paid Not Covered Elsewhere	10.03 (5.16)	10.75 (3.07)	9.91 (5.89)	0.00 (0.00)	18.13 (7.71)	0.00 (0.00)
Legal Expenditure	7.27 (3.75)	3.74 (1.09)	7.87 (4.68)	3.14 (5.52)	11.32 (4.80)	0.54 (0.07)
Transport (Taxes, License Fee etc.)	15.42 (7.93)	80.41 (22.80)	4.56 (2.70)	0.00 (0.00)	7.06 (2.98)	92.42 (25.00)
House Examination	30.17 (15.50)	37.87 (10.83)	28.87 (17.14)	24.73 (43.36)	30.79 (13.10)	41.38 (11.23)
Research & Faculty Improvement	3.91 (2.01)	23.38 (6.64)	0.63 (0.38)	1.05 (1.84)	0.37 (0.16)	26.87 (7.28)
Magazine & Advertisement	49.49 (25.42)	74.80 (21.24)	45.32 (26.89)	23.89 (41.91)	57.32 (24.33)	81.14 (22.00)
Rent	2.02 (1.04)	14.03 (3.99)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	16.12 (4.37)
Others	24.51 (12.57)	43.01 (12.29)	21.32 (12.67)	0.00 (0.00)	34.93 (14.84)	41.38 (11.15)
Total	194.81 (100.00)	351.57 (100.00)	168.36 (100.00)	57.00 (100.00)	235.49 (100.00)	368.62 (100.00)

Figures in parentheses are percentages.
Source: Primary Survey.

In case of Miscellaneous Cost component (Table 13) as an individual item, the highest proportionate share was constituted by the magazine and advertisement (25.42 percent) in overall. The house examination stood next with a share of 15.50 per cent. The cost related to affiliation and inspection formed about 13 percent. The TA/DA, too, cost about 19 percent of this component. The share of rest of the sub-components, such as legal, transport, research and faculty improvement and rent, remained proportionately very low.

The location-wise situation was different. In rural colleges, transport consumed higher proportion (22.80 percent); and in urban colleges, it was the TA/DA (23.34 percent). Ownership-wise, the pattern of cost in unaided private colleges on this component was different. In this category, the transport constituted exactly one-fourth of per unit Miscellaneous Cost.

Cost, Performance and Efficiency

The foregoing cost calculations across the management categories provide the sufficient, though not foolproof, framework to ascertain the relationship among unit costs, performance and efficiency. The academic performance has been measured by the examination results. The output of an educational institution is not strictly homogeneous. In fact, it is of a mixed variety or quality. The output in general in the case of institutions providing liberal education takes five forms, i.e. first divisioners, second divisioners, third divisioners, reappear, and fail. The comparison of examination results of the sampled institutions across the management categories presents a mixed picture. For example, the unaided colleges have performed better than the other two management categories (i.e. government colleges and aided colleges) by producing comparatively higher proportion of first divisioners (23.18 percent) and second divisioners (33.78 percent), and also having lower proportion of students with reappear (12.85 percent). But, this management category has higher proportion of the failed students (14.11 percent).

Similarly, the aided colleges have comparatively higher proportion of first and second divisioners than the government colleges. Moreover, this management category has the lower proportion of the failed students (13.62 percent) than the rest two. But government colleges have less proportion of reappears than the aided colleges. Thus, It was found that no management category has unquestioned edge over the others on all the five parameters (Table 14).

TABLE 14
Status of Results in General Education in the Sampled Institutions (April/May 2004)

Result	*Government Colleges*	*Aided Colleges*	*Unaided Colleges*
First Division	19.71	22.09	23.18
Second Division	32.92	33.46	33.78
Third Division	18.93	16.33	16.08
Reappear	13.37	14.50	12.85
Fail	15.07	13.62	14.11
Total	100.00	100.00	100.00

Source: Primary Survey.

The unit cost and performance parameters have been put together to assess the level of efficiency (Table 15). The unit costs have been presented at two levels, i.e. unit cost per student pass-out; and unit cost per student enrolled. The difference between these two types of costs (i.e. unit cost of the passed out and unit cost of the enrolled) indicate the level of efficiency. The higher level of difference indicates the lower level of efficiency and vice versa. The difference is highest in case of aided colleges (Rs. 2302.08), followed by government colleges (Rs. 2138.60), and lowest in case of unaided colleges (Rs. 1397.48). It establishes that the unaided colleges are the most efficient, the aided colleges the least efficient, and the government colleges occupy the middle position. Moreover, the perusal of data also shows that the respective level of per unit pass-out costs and enrolment costs were the lowest in case of unaided colleges, followed by government colleges, and aided colleges.

TABLE 15
Difference Between Per Unit Enrolment and Pass-Out Costs, and Other Variables by Type of Management

(Figures in Rupees)

Ownership	*Unit Cost (Pass Out)*	*Unit Cost (Enrolment)*	*Difference*
Unaided Colleges	9904.20	8506.72	1397.48
Government Colleges	14191.11	12052.51	2138.60
Aided Colleges	16902.18	14600.10	2302.08

Source: Primary Survey.

Concluding Observations

The study has brought out the actual level and composition of the various types of recurring costs pertaining to higher general education in Punjab. It provides, in a disaggregate manner, the break-up of recurring cost separately for rural and urban colleges, and for different categories of ownership/management, like government

colleges, aided private colleges, and unaided private colleges. The analysis of different compositions of unit cost shows that the overall cost of higher education consists of nine principal components, namely, teachers' cost, administrative cost, repair and maintenance cost, electricity cost, scholarships and concessions, extra-mural activities, consumables, communication and related services, and miscellaneous/contingencies. Among the various components, the teachers' cost alone worked out to be the single largest component of the per unit recurring cost. Moreover, the two exclusively salary based components, i.e. teachers' cost and administrative cost, constituted the bulk proportion of the unit recurring cost in overall as well as in all the locational and ownership/ management categories. Further, it emerged that per unit recurring cost was quite high in urban located colleges compared to the rural ones. It was the highest in the aided private colleges, followed by government colleges, and the lowest was in unaided private colleges.

Further, the per unit recurring cost was higher in case of traditional disciplines, such as social sciences, pure science and languages, than in case of the newly introduced disciplines such as computer sciences, management, commerce, bio-sciences, etc. This has been so because in the state the posts created during the last two decades have not been covered under the grants-in-aid scheme, and, therefore, the persons employed under non-aided posts, in general, do not get equal pay package to that of the aided posts. Moreover, the non-regular modes of employment are more predominant in recently introduced subjects.

The study unravels the dynamics of unit cost formation and hence its overall determination. The inter-connections among the various sub-components of unit cost work as the baseline level cost drivers. The unit cost manifests strong association with the average level of salary, strength of teaching staff, administrative staff and students; staff deployment practices; and teacher-student ratio. Per teacher salary level by interacting with teacher-student ratio affects the unit recurring cost. The efficiency analysis establishes that the unaided colleges are the most efficient, the aided colleges the least efficient, and the government colleges occupy the middle position.

Obviously, managing educational costs is a daunting task as the cumulative share of all the components, in non-salary category, in overall unit cost was in the lower range. Thereby, it is clear that the institutions have already spent less on supportive and associated educational inputs. Similarly, so far as the salary structure is concerned, it has to be kept competitive and in commensuration with other professions in order to attract the brilliant students towards the teaching profession. Per teacher salary in the pure private sector has been found to be substantially lower than that of their counterparts in the aided and government sector. This gradually distracts the meritorious students from joining such professions. So, ultimately the mediocrity replaces the brighter ones, and, in the long run, the higher education sector will experience 'talent starvation'. Thus, the salary structure within the education sector and that of the rest, of the professions has to be kept in close range. So, only by ensuring quality educational inputs, both of core and peripheral variety, could enhance the academic attainment and performance.

Moreover, per unit cost level was quite high keeping in view the level and distribution of per capita income in the state. Actually, the private sector, particularly of the pure private variety (non-aided), imparts higher education by fixing the supply price on cost plus basis. Noticeably, besides direct institutional charges and opportunity cost, students incur many other types of direct monetary expenses (books, stationery, transport, living expenses, etc.) in acquiring education. Such practices raise the actual cost of education to students manifold. It poses the real danger of pricing out of meritorious but less affording students. It may lead to social exclusion in the unregulated educational markets in the state or elsewhere. So, the access and affordability becomes an issue of paramount importance in the public policy interventions. The analysis too indicates the poor participation of students in higher education from weaker sections of society. Hence, the larger social context as well as human capital imperatives demand lowering down of the educational costs and consequently of the supply price. Hence, only through the massive involvement of public resources, the access and equity in higher education could be materialized.

Notes

This is part of a large study sponsored by the Association of Indian Universities (AIU), New Delhi. The suggestions and comments provided by the Research Division of AIU on the earlier draft have immensely enriched the report. The authors are grateful to Professor Dayanand Dongaonkar, Secretary General, AIU, for financing the study. The usual disclaimers apply.

References

Bedi, P. (1994): *Analysis of Costs of Education at Various Levels – A Case Study of Jalandhar District*. Unpublished Ph.D. Thesis, Guru Nanak Dev University, Amritsar.

Brar, J.S. (1999): *Punjab's Educational Progress and Educational Expenditure (1967-68 to 1993-94)*. Centre for Research in Economic Change, Punjabi University, Patiala.

Brar, J.S. (2002): Basic Education, Health Care and Economic Growth in Punjab. *Man and Development*. Vol. 24(1), pp. 51-63.

Chalam, K.S. (1978): Expenditure on University Education: A Unit Cost Analysis. *Journal of Higher Education*, Vol. 4(2), Autumn, pp. 201- 24.

Duncombe, W. et al (1995): *Alternative Approaches to Measuring the Cost of Education – Performance Based Approaches to School Reform.* The Brooking Institution, Washington D.C.

Duraisamy, P. and T.P. Subramanian (2000): Costs, Financing and Efficiency of Public and Private Schools in Tamil Nadu, India. *Journal of Educational Planning and Administration*, Vol.14, No. 3, pp.249-67.

Garg, V.P. (1985): *Cost Analysis in Higher Education – A Theoretical Frame; Empirical Results.* Metropolitan Books, New Delhi, pp. 44-59.

Ghuman, R.S., S. Singh and J.S. Brar (2005): *Unit Cost of Higher Education in Punjab – A Study of Universities and Their Affiliated Colleges.* The Project Report submitted to Association of Indian Universities (AIU), New Delhi.

Gill, S.S., S. Singh and J.S. Brar (2005): Educational Development, Public Expenditure and Financing of Secondary Education in Punjab. *Journal of Educational Planning and Administration*, Vol. XIX (3), pp. 335-74.

GOI (1986 and 1990): *National Policy on Education - 1986 and 1990.* Ministry of Human Resource Development, New Delhi.

GOP (2002a): *White Paper on the State's Finances.* Government of Punjab (GOP), Department of Finance, March, Chandigarh.

GOP (2002b): *Punjab Education Policy 2002 and Programme of Action.* Education Department of Punjab, Chandigarh.

Jimenez, E et al. (1991): "The Relative Efficiency of Private and Public Schools in Developing Countries," *The World Bank Research Observer*, Vol.6, pp. 205-18.

Lockheed, M.E. and H. Eric (1988): "Improving Educational Efficiency in Developing Countries: What do We Know. *Compare – A Journal of Comparative Education*, Vol.18, No. 1, pp.21-38.

MHRD (2002): *Budgetary Resources for Education.* Ministry of Human Resource Development (MHRD), Annual Publication, New Delhi.

Mingat, A. et al. (2003): *Tools for Education Policy Analysis.* The World Bank, Washington, D.C.

Mittar, V., S. Singh, and J.S. Brar, (2002): *Changing Structure of Education in Punjab: Some Issues and Policy Recommendations.* Publication Bureau, Punjabi University, Patiala.

PHDR (2004): *Punjab Human Development Report 2004.* Department of Planning, Government of Punjab, Chandigarh.

Ponnell, H. and A. West (2005): The Impact of Increased Fees on Participation in Higher Education in England. *Higher Education Quarterly*, Vol. 59, No. 2, pp. 127-37.

Powar, K.B. et al. (1995): *Unit Cost of Higher Education: Concept and Methodology – Policies of Higher Education.* AIU, New Delhi, pp. 85-99.

Raikhy, P.S. (2003): *Unit Cost of Higher Education – A Study of Guru Nanak Dev University, Amritsar.* A UGC Research Project, Punjab School of Economics, Guru Nanak Dev University, Amritsar.

Salim, A.B. (1997): *The Cost of Higher Education in India.* Anmol Publications, New Delhi.

Tilak, J.B.G. (2004): Public Subsidies in Education in India. *Economic and Political Weekly*, Vol. 39 (4), January, pp. 343-59.

Tilak, J.B.G. and G.K. Bhat (1986): *Costs of Supply of Education at Micro Level.* NIEPA, New Delhi.

World Bank (2000): *Higher Education in Developing Countries - Peril and Promise.* Washington D.C.

Journal of Educational Planning and Administration
Vol. XXII, No. 2, April 2008

IASSI QUARTERLY

(A Journal of the Indian Association of Social Science Institutions (IASSI)

Vol.25 **January-March 2007** **No.3**

Subscription Rates

For India and SAARC countries, including postage: Rs.250/- for one year, including postage, Single copy Rs.70/-

For other countries: US $ 40 per year or equivalent, including postage by surface mail, and US $ 50 by air mail. Single copy US $ 15 by Airmail and US $ 12 by Surface mail.

Enquiries and Correspondence should be addressed to Member-Secretary, Indian Association of Social Science Institutions (IASSI) Room No.97, I.I.P.A. Hostel, Indian Institute of Public Administration, I.P.Estate, New Delhi-110 002 (Tel: 23324581/23315284/23356834; Fax: 23315284: E-mail:stiassi@bol.net.in, stiassi@yahoo.co.in; Website:www.iassi.nic.in

Journal of Educational Planning and Administration
Volume XXII, No. 2, April 2008, pp. 179-198

Under-age Children in Primary Schools
Implications for Educational Planning in India

Neelam Sood*

Abstract

This article is aimed at flagging two inter-related issues that are significant in the context of defining appropriate entry age for primary education. The first one is about the need for stabilization of school entry age at primary stage in the country in accordance with Article 21A on right to education (86th Constitutional Amendment Act, 2002) that assumes class I age as 6 years. Second issue pertains to the State's responsibility for provision of ECCE in the country.

Using DISE data on under-age children enrolled in class I, this paper discusses the said issues for planning of primary and pre-primary education in the country. The author argues for a need to have a standard primary entry age in the country which will not only give rise to homogeneous age cohorts and facilitate evolving of age-grade correspondence at primary and beyond, is also likely to boost planning of ECCE by fixing the exit age.

Introduction

The term 'under-age' has an implicit connotation to an age that is deemed as 'the right age' for children to be in class I. Children below *that right age* in class I are to be termed as under-age. The pertinent question, therefore, is to define that 'right age' for children to start formal schooling. Ideally, children should start school at a stage when they are emotionally and cognitively 'ready' for formal schooling, irrespective of the fact that they are somewhat older or younger than the defined age. This, however, is difficult to determine and would vary a great deal as each child develops at his or her own pace. Defining a chronological age for school entry is therefore an imperative in educational planning.

The issue of entry age for primary education obviously has a bearing on the exit and entry age for education, both prior to and beyond primary. In other words, the exit age for pre-primary becomes the entry age for primary and exit age of primary will determine the age of entry to upper primary which, in turn, will affect the age in all the subsequent stages of education. Further, the entry age for primary also impacts on the length of pre-primary education. Incidentally in Delhi, the issue of entry age to pre-primary as well as

* Department of Inclusive Education, NUEPA, New Delhi. Email: profsood@gmail.com

primary has been a subject of considerable debate in recent times when the confusion prevalent on this aspect in schools in the city came to the fore.

This paper is set out in three parts with a main focus on presenting the segment of under-age children in class I in primary school, an issue that has received scant attention in the past. Part A provides the conceptual backdrop of what is considered as the right entry age, for primary stage, based on research evidence and current practice in different countries and different States within India. Part B gives a detailed picture of under-age children in class I in the country as seen from DISE data. In Part C, implications of enrolling under-age children in primary school with regard to planning of both pre-primary and primary stages are briefly discussed.

Right Entry Age for Primary Education

While the question of school-starting age has been debated extensively among educational planners, researchers and parents, both sides of arguments are offered. Those who are in favour of an early start, aver that children are quite capable of learning skills at an early stage and starting formal school early gives them an advantage which is particularly useful for children from less advantaged backgrounds. This kind of an early introduction, they argue, serves as an opportunity for these children to make up for the deficit in their academic skills. On the other hand, child development specialists have reservations on whether teaching of 3 Rs at an early stage really gives the child any long-term advantage. On the contrary, they caution about the dangers that such an early introduction of formal learning may entail.

Early vs. Delayed School Entry

In recent years, a large body of research evidence has been accumulating on the merits and demerits of starting school early. In fact the topic of school entry age has fascinated researchers in several fields of study, such as Education, Developmental Psychology, Early Childhood Education/Child Development and Special Education.) Several investigators have assessed the effect of school entry age on acquisition of quantitative skills, social behaviour, intelligence, reading achievement and academic achievement in elementary school.

Studies that compared children in the same class with different birth dates (assuming that the age spread is randomly distributed over 12 months), provide useful insight into whether older children in the same class perform better than younger children. This difference in favour of older children was reported by some investigators in the initial classes (Cameron & Wilson, 1990; Crosser, 1991). Such a gain in children was also observed in later stage of elementary education (Crosser, 1991; Breznitz & Teltsch, 1989) though some of the earlier researches had reported no difference in some or all achievement tests (Dietz & Wilson, 1985; Kinard & Reinhertz, 1986).

Further, significant age differences that were seen in early stages were indicated to be weak (Langer, Kalk and Searls, 1984; Sweetland and De Simone, 1987; Jones and

Mandeville, 1990) or these differences disappeared altogether by upper primary stage (Kinard and Reinhertz, 1986; May and Welch, 1986; Bickel, Zigmond and Strayhorn, 1991; McClelland, Morrison and Holmes, 2000; Stipek and Byler, 2001). Although findings of these studies vary somewhat, yet a clear cut trend discernible from these investigations was that the age difference of less than a year did not make a significant difference in achievement of children. A small advantage in being older seemed to disappear with age.

Apart from comparing children in the same class, a more powerful strategy that has been employed in some studies includes comparison of children of the same age in different classes and children in the same class but approximately one year apart (Deborah, 2003). While the first comparison gives information on the effect of a year of schooling, holding age constant; the second one provides information on the effect of chronological age, holding the number of years of schooling constant. Results of these studies suggest that schooling was a strong variable for cognitive skills that were tested. For example, children who were in school for a year gained more in mathematics, reading and literacy in most studies than the children of same age who were not in school (Cahen & Cohen, 1989; Ferreira and Morrison, 1994; Bisanz, Morrison & Dunn, 1995).

Evidence from the above-referred studies points out that within the five- to six-year-old range in which most children begin school in the US, where these studies were conducted, age was not a significant predictor of academic success (Morrison, Smith & Dow-Ehrensberger, 1995; Morrison, Alberts & Griffith, 1997). In other words, available empirical evidence of studying the effect of entry age of 5 versus 6 is not categorical about any gain for a particular age group over the other in an absolute way.

School Entry Age in Other Countries

In practice, we find the entry age to the first level of education varies between four to eight years across countries. But the trend in majority of the countries across the world has been to define the age of entry as six. Information brought out by UNESCO on the entrance age to first level of formal education confirms this trend as 134 of the 217 countries in the world follow 6 years as the norm. Twenty-eight countries, 12 from North America, have fixed the entry age as 5. Many African and European countries start a year later than 6. In Asia, Mangolia starts formal schooling as late as at eight, while in Gibraltar (Europe) children start formal schooling at the age of four (UNESCO, 1999).

Current Practice in India

In India, we do not have a standard age for primary school entrance. While in a large number of States and Union Territories (Table1), age of admission to class I in primary school is set as 5 years, in the remaining States/UTs which comprise Madhya Pradesh, Bihar, Haryana and some of the north-eastern States, children start the first level of formal education at the age of 6 years.

TABLE 1
Age of Admission in Class I in India

State	*Entry Age*		*State*	*Entry Age*	
	5	6		5	6
Andhra Pradesh	√		Nagaland		√
Arunachal Pradesh		√	Orissa	√	
Assam		√	Punjab	√	
Bihar		√	Rajasthan	√	
Goa	√		Sikkim	√	
Gujarat	√		Tamil Nadu	√	
Haryana		√	Tripura		√
Himachal Pradesh	√		Uttar Pradesh	√	
J& K	√		West Bengal	√	
Karnataka	√		A& N Islands	√	
Kerala	√		Chandigarh	√	
Madhya Pradesh		√	D& N Haveli	√	
Maharashtra	√		Daman & Diu	√	
Manipur	√		Delhi	√	
Maghalaya		√	Lakshadweep	√	
Mizoram		√	Pondicherry	√	

Source: Selected Information on School Education. Ministry of Human Resource Development, 2003.

Uttaranchal, Chhattisgarh and Jharkhand have also defined the school entry age for primary as six years. Altogether, primary school entry age is stipulated as 6 in twelve States, whereas in the remaining twenty-three States/ UTs, the same is fixed at 5. It is desirable to define one standard age for school entry at the primary stage in the country for reasons outlined earlier.

Under-age Children as per DISE Data

In the District Information System of Education of the National University of Educational Planning and Administration, statistics are collected on various indicators for elementary education in India. This database, updated every year, also includes information on the number of children enrolled in the initial grade of primary at an age when they are less than 5 or 6 years. From this data-source, the information on the number of children enrolled in class I at an age when they were less than the school entry age (as defined by that State) was obtained for both sets of States (DISE, 2006). In other words, children enrolled in class I at *less than 6 years* of age have been categorized as under-age for one

set of States, where prescribed school entry age is 6 years. Similarly, for the other category of States, DISE data were used to assess the number of children enrolled in class I at an age *less than 5 years*.

As the data on actual age of children is not available, it was not possible to determine the time-space these children were short of the prescribed school entry age. Two categories of States with stipulated School Entry Age (SEA) as 6 and 5 are referred to as SEA 6 and SEA 5 respectively in the subsequent part of the paper.

Using DISE data on enrolment and under-age children in class I for the year 2005-06, the proportion of under-age children have been assessed for SEA 6 and SEA 5 categories of States and inter-state variations have been examined. Further, the distribution of under-age children across three school management types i.e. government, private-aided, and private schools has been depicted. Rural-urban and gender differences among under-age children have also been highlighted.

primary purpose of this paper is to draw attention to the segment of under-age childr enrolled in primary schools in the country and highlight the implications of this issue both for primary and pre-primary education planning in the country.

Proportion of Under-age Children

In case of SEA 6 States, assessment made from available statistics indicates that 25.2 percent of the children enrolled in class I are less than 6 years. The corresponding proportion of children for SEA 5 category of States is found to be 4.9 per cent. It may be noted that SEA 6 category includes 12 States, some of these being large States, while SEA 5 category comprises 23 States/UTs in the country. The proportion of under-age children enrolled in class I in SEA 6 states, as would normally be expected, is larger than the other category. In other words it means that, on an average, one in every four children enrolled in class I. In these twelve States is less than 6 years of age and almost one in every twenty children enrolled in class I in the other twenty-three States is less than 5 years of age.

In the country as a whole, altogether 11.5 percent of the children in class I are enrolled at a younger age than the prescribed age of school entry in the respective State. It is not known whether these children are on the rolls only in primary school or are also enrolled in any pre-primary centres in the vicinity. Their pattern of attendance is also not known.

Owing to the overlap in the eligible entry age for school (5-6 years) and ICDS (3-6 years), probability of duplication in enrolment cannot be ruled out. Clearly, if children under 6 years are participating in primary school, they are not receiving any form of early childhood education.

TABLE 2
Under-age Children in Class I

Entry Age 6			*Entry Age 5*					
State	Number	Per Cent	State	Number	Per Cent	State	Number	Per Cent
Arunachal Pradesh	29466	42.5	A & N Islands	46	0.8	Maharashtra	55218	2.5
Assam	208432	28.3	Andhra Pradesh	128645	7.9	Manipur	12076	10.4
Bihar	494218	14.5	Chandigarh	813	5.3	Orissa	6272	0.6
Chhattisgarh	83490	9.2	D & N Haveli	145	2.2	Pondicherry	258	1.3
Haryana	93775	31.1	Daman & Diu	39	1.3	Punjab	21152	6.8
Jharkhand	299910	21.0	Delhi	7410	2.3	Rajasthan	553020	21.9
Madhya Pradesh	1117922	45.4	Goa	156	0.7	Sikkim	325	1.6
Meghalaya	49059	40.7	Gujarat	7802	0.6	Tamil Nadu	42241	3.3
Mizoram	12562	29.3	Himachal Pradesh	7182	5.6	Uttar Pradesh	91791	1.5
Nagaland	17425	22.7	J & K	20833	9.1	West Bengal	56680	2.6
Tripura	1284	1.1	Karnataka	0	0.0	-	-	-
Uttaranchal	91719	39.0	Kerala	10261	2.7	-	-	-
All India Total	2499262	25.2	Lakshadweep	96	6.2	All India	1022461	4.9

Source: DISE 2005-06.

State-Wise Variations

The overall percentages presented as all India total in Table 2, it must be noted, do not depict inter-state variations that are fairly large in both categories. Madhya Pradesh, for example, tops the list in SEA 6 category as the State has 45.4 per cent children enrolled in class I at less than 6 years of age, implying that almost every second child enrolled in class I is not of six years yet. Similarly, in Arunachal Pradesh, Meghalaya, Uttaranchal, Haryana, Mizoram, and Assam, more than 25 percent children enrolled in class I are under-age. Jharkhand and Bihar, although lower in terms of percentage, have close to 3 lakh and 5 lakh under-age children in class I respectively.

School entry age in Rajasthan was 6 years up to 1998 and thereafter the same was reduced to 5 years. These statistics suggest that despite school entry age being low in the the State, 21.9 per cent of the children enrolled in class I are under-age. In other words, every fifth child enrolled in primary schools in Rajasthan is less than 5 years of age. In Manipur, Jammu & Kashmir, Andhra Pradesh, Punjab and Lakshadweep, 6 to 10 percent children enrolled in class I are under-age. Being large states, West Bengal, Maharashtra and Uttar Pradesh have high number of under-age children (Table 2). As a category SEA 5, these twenty-three states altogether, have 4.9 percent (10.2 lakh) children enrolled in class I at less than 5 years of age.

Difference by School-Management Type

To find out whether the under-age children enrolled in greater numbers in government schools or if there is a tendency on the part of parents to enrol children early in private schools, DISE data were analyzed by school type.

TABLE 3
Percentage of Under-age Children by School Management in States with Entry Age 6

	School Management		
State	*Government*	*Private-Aided*	*Private Unaided*
Arunachal Pradesh	42.6	42.4	33.1
Assam	28.4	21.3	28.1
Bihar	14.4	31.1	24.2
Chhattisgarh	7.3	27.6	21.6
Haryana	32.3	15.0	26.4
Jharkhand	21.2	13.5	11.1
Madhya Pradesh	44.3	50.9	53.9
Meghalaya	51.0	36.0	25.7
Mizoram	30.5	25.2	26.4
Nagaland	22.8	22.6	0.0
Tripura	1.1	1.0	0.4
Uttaranchal	38.2	40.5	55.6
All	24.1	41.7	32.5

Source: DISE 2005-06.

Three states in SEA 6 category that had the largest proportion of under-age children in government schools include Madhya Pradesh, Arunachal Pradesh and Meghalaya (Table 3). Two of these states, i.e., Madhya Pradesh and Arunachal Pradesh, also had the largest share of under-age children in private-aided schools. Next highest share of under-age children in private-aided schools was in Uttaranchal where 40.5 percent of those enrolled in class I in such schools were less than 6 years. In private-unaided too, Uttaranchal had a large share of under-age children, i.e., 55.6 percent enrolled in class I being less than 6 years. In Madhya Pradesh, 53.9 percent of children in class I in private unaided schools were less than 6 years of age. Altogether, in SEA 6 states, the proportion of under-age children out of total enrolled is the highest in private-aided (41.7 %), followed by private unaided (32.5 %) and government (24.7%) schools.

In SEA 5 category of states, Rajasthan, Manipur and Jammu & Kashmir had the largest proportion of under-age children in government schools (Table 4). In private-

aided schools, Punjab and Chandigarh, besides Rajasthan (that tops the list) have a high proportion of under-age children. Three states/ UTs where 20- 40 per cent of children enrolled in private schools are less than 5 years of age include Rajasthan, Jammu & Kashmir, and Dadar & Nagar Haveli. In SEA 5 category as a whole, again the same trend was observed. The largest proportion of under-age children was seen in private-aided schools (11%) followed by private (4.8 %) and government schools (3.6%).

TABLE 4
Percentage of Under-age Children by School Management in States with Entry Age 5

State	School Management			State	School Management		
	Govt.	Private Aided	Private		Govt.	Private Aided	Private
A & N Islands	0.8	0.0	0.0	Lakshadweep	6.2	0.0	0.0
Andhra Pradesh	6.4	11.6	9.2	Maharashtra	1.6	6.6	3.7
Chandigarh	1.8	13.8	6.1	Manipur	10.1	10.6	12.7
D & N Haveli	0.3	0.0	25.8	Orissa	0.5	3.3	1.3
Daman & Diu	1.9	0.0	0.2	Pondicherry	1.4	0.5	2.6
Delhi	2.2	2.3	2.5	Punjab	5.4	14.4	9.9
Goa	0.9	0.0	0.5	Rajasthan	16.6	38.5	39.1
Gujarat	0.4	1.8	3.5	Sikkim	1.1	3.2	5.8
Himachal Pradesh	4.7	9.1	1.3	Tamil Nadu	2.1	4.9	4.1
Jammu & Kashmir	8.2	10.7	22.2	Uttar Pradesh	0.7	4.0	6.0
Karnataka	0.0	0.0	0.0	West Bengal	2.6	0.0	3.9
Kerala	2.5	5.6	2.6	All	3.6	11.0	4.8

Source: DISE 2005-06.

Larger proportion of under-age children in private schools in Jammu & Kashmir, Uttar Pradesh, Rajasthan, Punjab, and Dadra & Nagar Haveli may have to be viewed in relation to the availability of government schools and their effectiveness as perceived by parents and a host of other factors. Most of the states in SEA 5 category have a higher percentage of under-age children in private and private-aided schools as compared to government schools. Some of the smaller states/UTs, such as Goa, A & N Islands, Lakshadweep, and Daman & Diu are seen to be exceptions to this trend.

Rural-Urban Difference

Comparison of children across rural-urban areas shows that a greater proportion of children are enrolled in school at an early age in urban areas even when they are yet ineligible. In terms of percentage, SEA 6 states had 34.2 percent under-age children in

urban areas as compared to 24.3 percent in rural areas (Table 5). In the SEA 5 states, under-age children were higher in urban areas (6.8 %) when compared to rural areas where 4.5 percent children were found to be under-age.

Three states in SEA 6 category with the highest percentage of under-age children in schools in urban areas included Uttaranchal, Madhya Pradesh, and Meghalaya, while three toppers in SEA 5 category included Rajasthan, Andhra Pradesh and Manipur.

States with the highest proportion of under-age children in rural areas in SEA 6 group included Madhya Pradesh, Arunachal and Meghalaya, whereas three states with the highest under-age proportion in SEA 5 category were Rajasthan, Manipur, and Jammu & Kashmir (Table 5).

TABLE 5
Proportion of Under-age Children by Residence

Entry Age 6			*Entry Age 5*					
State	*Rural*	*Urban*	*State*	*Rural*	*Urban*	*State*	*Rural*	*Urban*
Arunachal Pradesh	43.5	31.4	A & N Islands	1.1	0.1	Maharashtra	1.6	4.2
Assam	27.8	34.8	Andhra Pradesh	6.5	11.8	Manipur	10.2	11.7
Bihar	13.9	25.3	Chandigarh	0.5	6.3	Orissa	0.5	1.4
Chhattisgarh	7.3	23.1	D & N Haveli	2.6	1.0	Pondicherry	1.0	1.6
Haryana	32.8	19.9	Daman & Diu	1.8	0.9	Punjab	6.0	10.1
Jharkhand	20.7	26.1	Delhi	1.8	2.4	Rajasthan	20.9	27.8
Madhya Pradesh	45.5	44.9	Goa	0.8	0.5	Sikkim	1.8	0.0
Meghalaya	40.4	44.4	Gujarat	0.5	1.1	Tamil Nadu	2.2	5.9
Mizoram	32.8	24.2	Himachal Pradesh	5.4	7.6	Uttar Pradesh	1.2	4.5
Nagaland	22.9	21.8	J & K	8.9	10.1	West Bengal	2.2	4.8
Tripura	1.2	0.3	Karnataka	0.0	0.0	-		
Uttaranchal	37.8	48.4	Kerala	2.8	2.5	-		
All India	24.3	34.2	Lakshadweep	6.2	0.0	All India	4.5	6.8

Source: DISE 2005-06

The above findings again need to be interpreted in a broad framework of availability and quality of facilities for both primary and pre-primary education and the parental perceptions about usefulness of these services for their children. Several factors, including the costs involved in schooling, incentives offered at these institutions may have an influence on choices made by parents.

While issues such as these need further investigation, the core concern here revolves around the fact that large number of under-6 children are missing out on ECCE at this critical age. With expansion of ICDS facilities, particularly in rural areas and growth of pre-primary facilities in urban areas, what drives parents to enrol their children in school at an age when they are still unprepared for formal learning, and what in their perception

are the advantages of attending school vs. early childhood education centres when they are less than 5 or 6 years of age remain to be found.

Gender Differences

Percentage of under-age girls, seen as a proportion of class I enrolment, was marginally higher (25.5) than that of boys (25.0) in the category SEA 6 states (Table 6). This difference was found to be much higher in SEA 5 states. In the latter category, the difference was in favour of boys, as 5.1 percent of boys and 4.7 percent of girls enrolled in class I were less than 5 years of age. This implies that among children under five, more boys were enrolled in school but the preference almost disappeared in case of under 6 children.

TABLE 6
Percent of Gender-Wise Enrolment

Entry Age 6			*Entry Age 5*					
State	*Boys*	*Girls*	*State*	*Boys*	*Girls*	*State*	*Boys*	*Girls*
Arunachal Pradesh	42.3	42.6	A & N Islands	0.7	1.0	Maharashtra	2.6	2.5
Assam	28.4	28.2	Andhra Pradesh	7.9	7.9	Manipur	10.5	10.4
Bihar	14.6	14.4	Chandigarh	3.6	7.2	Orissa	0.6	0.6
Chhattisgarh	9.3	9.1	D & N Haveli	1.8	2.5	Pondicherry	1.4	1.2
Haryana	31.4	30.8	Daman & Diu	1.1	1.6	Punjab	6.9	6.7
Jharkhand	20.9	21.1	Delhi	2.5	2.0	Rajasthan	23.1	20.5
Madhya Pradesh	45.5	45.4	Goa	0.9	0.5	Sikkim	1.5	1.7
Meghalaya	40.7	40.8	Gujarat	0.6	0.6	Tamil Nadu	3.3	3.3
Mizoram	28.8	30.0	Himachal Pradesh	5.6	5.5	Uttar Pradesh	1.6	1.4
Nagaland	23.2	22.1	J & K	9.0	9.2	West Bengal	2.5	2.6
Tripura	1.1	1.1	Karnataka	0.0	0.0	-		
Uttaranchal	39.6	38.4	Kerala	2.7	2.7	-		
All India Total	25.0	25.5	Lakshadweep	6.1	6.2	All India	5.1	4.7

Source: DISE 2005-06.

Among most of the SEA 6 states, there was a negligible difference between under-age boys and girls. Nagaland and Uttaranchal had more under-age boys as compared to girls while the converse was true for Mizoram and Arunachal Pradesh. In SEA 5 category of states, Rajasthan stands out once again with a much higher sex difference in under-age children in favour of boys. Another instance where sex difference in proportion of under-age children was seen to be high was the Union Territory of Chandigarh. Interestingly, here the proportion of under-age girls enrolled was twice as much as that of boys.

Major Observations

Major indications that emerged from analysis of DISE data on under-age children seen as a percentage of class I enrolment in both SEA 6 and SEA 5 categories of states are summarized as follows:

- Larger percentage of under-age children is in states with school entry age as 6.

  In states with school entry age of 6 years, 25.2 percent of children enrolled in class I are under 6 as compared to 4.9 percent in states with entry age as 5. Thus it is seen that a much higher percentage of children are enrolled in school before the age of 6 as compared to those enrolled under five years. Madhya Pradesh has the highest (45.4 %) percentage of under-age children among the twelve SEA 6 category states. Other states with high proportion of under-age enrolment in this category include Arunachal Pradesh, Meghalaya, Uttaranchal, Haryana, Mizoram and Assam. Rajasthan tops the list of SEA 5 states with 21.9 percent in class I being of less than 5 years. Next in order are Manipur, Jammu & Kashmir, Punjab and Lakshadweep.

- Larger percentages of under-age children are in private-aided schools.

  Under-age children constitute a larger percentage of total enrolment in private-aided schools, followed by private and government schools in both categories of states i.e. with 6 and 5 years as school entry age. Three large states, namely Madhya Pradesh, Arunachal Pradesh and Rajasthan have a high proportion of under-age children in government, private-aided and unaided private schools.

  Meghalaya and Manipur have a high proportion of under-age children in government schools, whereas in Uttaranchal, proportion of under-age children was high in private-aided and unaided schools. In Jammu & Kashmir, the proportion of under-age children is high in government and private schools, while Punjab has a high percentage in private-aided schools.

- Large percentage of under-age enrolment in urban areas is seen in both SEA 6 and SEA 5 states.

  Rajasthan and Manipur have a high percentage share of under-age children in both rural and urban areas. Uttaranchal, Madhya Pradesh, Meghalaya and Andhra Pradesh have a high percentage in urban areas; Jammu & Kashmir has a high share in rural areas.

- More under-age boys enrolled in SEA 5 States

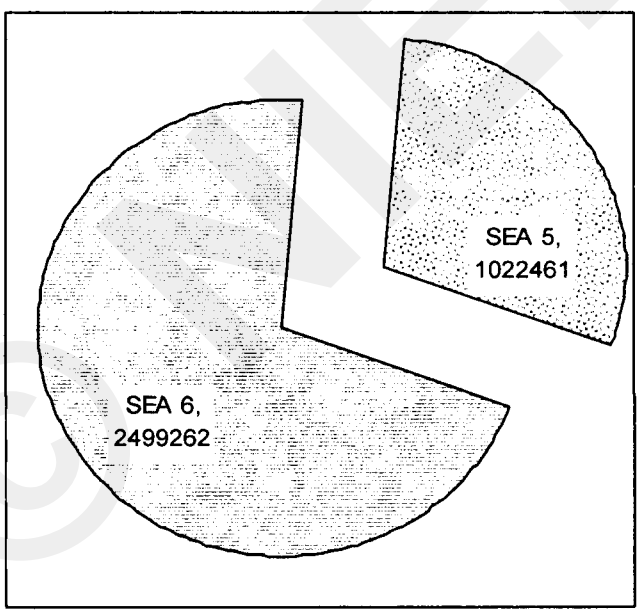
  In many states, boys outnumber girls among under-age children in class I, though the difference between the two is only minimal in terms of percentage. In SEA 5 category of states, under-age boys' proportion is much larger. Mizoram and Chandigarh have more under-age girls than boys; in the latter case, proportion of girls enrolled under-age is twice that of boys.

  It may be reiterated that these indications have emerged from the data as available under DISE (2005-06).

Under-age Children in Absolute Numbers

A cursory glance at the proportion of under-age children in class I presented in Table 1 seems to project their enrolment in class I as a 'small' problem in most of the states. Except for a few major states, their proportion seems insignificant as these hover around 2-7 percent, particularly in states with school entry age as 5. But the magnitude of the problem can be gauged by looking at the *actual number* of under-age children in the country. A total of 11.5 percent under-age children in class I in the country translate into 35.2 lakh children enrolled in school before attaining age of eligibility and ready in terms of mental age. Of these, 24.9 lakh are in twelve states where school entry age is 6 years, and 10.2 lakh in the remaining 23 states/UTs where enrolment age is 5 years (see Fig 1). Moreover, the total number of under-age children in primary school is likely to be much *higher than 35.2 lakh* when the proportion of under-age children in other classes is added.

FIGURE 1
Number of Under-age Children in Class I



Source: DISE 2005-06

In Madhya Pradesh alone, 11.1 lakh children are enrolled in class I at less than 6 years of age. Similarly, a large number of children in Bihar (4.9 lakh), Jharkhand (2.9 lakh) and Assam (2.0 lakh) start school at less than 6 years of age. Rajasthan has 5.5 lakh children who are admitted in school when they are less than 5 years, and in Andhra Pradesh, 1.2 lakh begin school at less than 5 years of age as per the data available from DISE (2005-06).

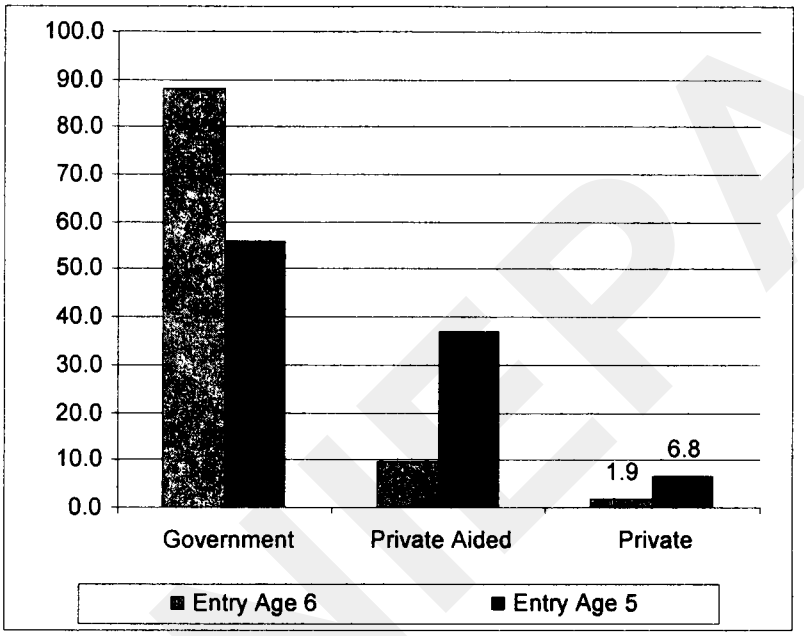
Though proportion of under-age children as a percentage of total class I enrolment is found to be the highest in private-aided schools for both categories of states, but seen in absolute numbers, their percentage enrolled in class I in government schools is high because the total enrolment in government schools in the country is many times that of the private schools, aided as well as unaided. For instance, in SEA 5 states, the total class enrolment for all schools is numbered at 20701256 as per DISE 2006 data. Of these 207 lakh children, 158.2 lakh (76.4%) are enrolled in government schools. The enrolment in private-aided and private schools stands at 34.4 lakh (16.6%) and 14.4 lakh (7%) respectively. In SEA 6 states, the total enrolment in class I in government schools is much higher in comparison to SEA 5 states. It is estimated as 9903547 children as per DISE 2006. Among these 99 lakh children, 91.6 lakh are enrolled in government schools, implying that 92.5 percent enrolment is in the government system. Only 6 per cent enrolment is in private-aided schools and 1.5 percent is in private unaided schools.

Among 35.2 lakh under-age children, 27.7 lakh children are in government schools, 6.1 lakh in private-aided and 1.1 lakh in private schools. Among 27.7 lakh children in government schools, SEA 6 category of states have 22 lakh under-age children and the remaining 5.73 lakh are in SEA 5 category states. In private aided schools, comparatively higher number of under-age children are seen in SEA 5 states, numbering 3.7 lakh against 2.4 lakh in SEA 6 states (Table 7). Clearly, children aged less than 5 years are enrolled in higher numbers in private-aided schools. Similar trend is observed for private unaided schools where 69.4 thousand children are enrolled at less than 5, whereas 48.2 thousand at less than 6 years. Greater tendency to enroll early in private schools is thus evident.

Distribution of under-age children across government, private-aided and private schools as depicted in Figure 2, shows that enrolment of ineligible children is far greater in government schools in states where school entry age is 6 years. Enrolment trend is seen to be different in SEA 5 states where greater number of children are enrolled in private schools, aided and unaided. DISE statistics reveal that 37.1 percent of under-age children are enrolled in private-aided schools at less than 5 years of age as compared to 9.9 percent enrolled at less than 6 years. This difference in favour of private unaided was also noted. Whether this is linked to the difficulty in completing admission-related formalities with regard to age–proof etc. in government schools or any other reason needs to be investigated. DISE data do clearly indicate that children are enrolled in private schools earlier than prescribed age. Nonetheless, preference for private schools in general is a much larger issue and warrants an in-depth understanding in terms of variation across socio-economic status of families and the situation in different states.

In both categories of states, boys outnumbered the girls among under-age children. In SEA 6 states, the number of under-age boys was 1.28 lakh against 1.21 lakh girls, whereas SEA 5 states had 5.5 lakh boys in comparison to 4.6 lakh girls. (Table 7).

FIGURE 2
Distribution of Under-age Children as Part of Total Class 1 Enrolment by School Management Type



Source: DISE 2005-06.

Looking at the rural-urban distribution of under-age children, the picture is again different from the trends seen earlier in terms of under-age children as a proportion of class I enrolment. In absolute numbers, under-age children are much larger in rural areas as compared to those in urban areas as the total enrolment in rural areas is higher than in the urban. Among a total of 35.2 lakh children, 29.3 lakh are in rural areas and 5.9 lakh are in urban areas, for both categories of states.

Further, their number seen by school type, gender and rural-urban residence for both sets of states (Table7) shows larger gender differences in enrolment in private-aided schools in SEA 5 States. A total of 2.24 lakh boys, as against 1.55 lakh girls were enrolled in private-aided schools at less than 5 years age. This gap was much larger in rural areas. As seen in Figure 3a, the difference in enrolment of under 5 children was much larger in private-aided schools. It indicates a preference in rural areas for enrolling boys in private schools at an early age.

TABLE 7
Number of Under-age Children in Class I in India

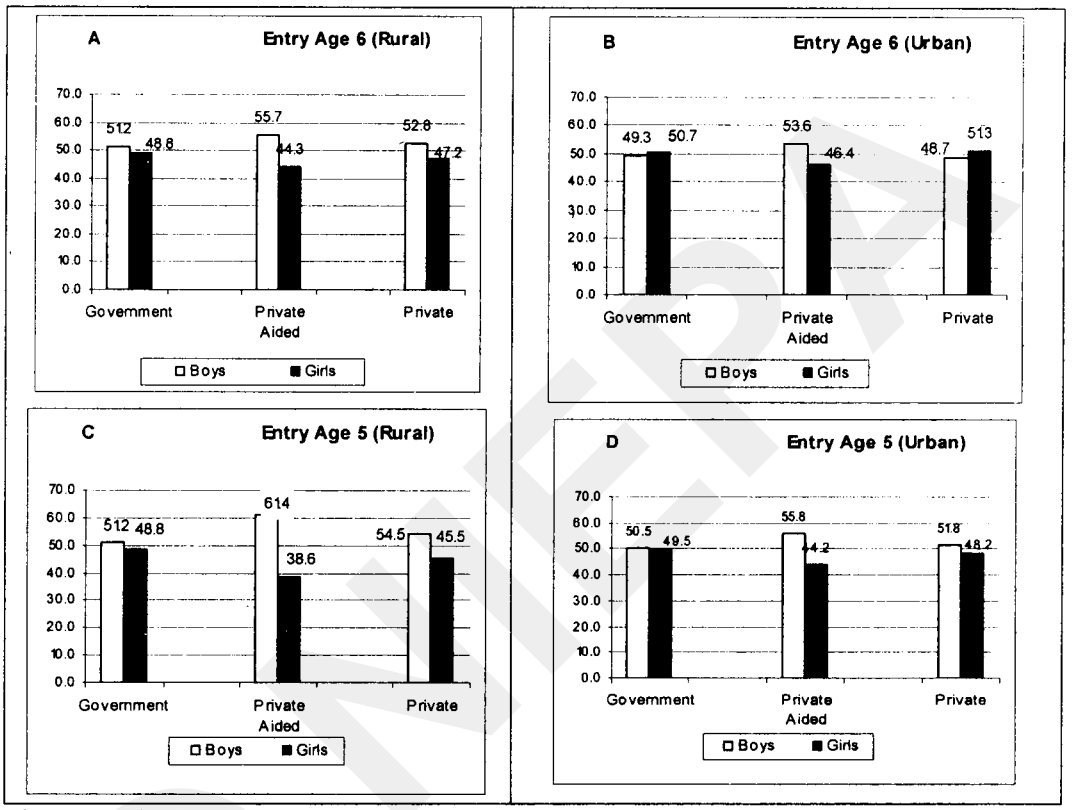
		SEA 6			*SEA 5*			*Total*		
Type	*Gender*	*Rural*	*Urban*	*Total*	*Rural*	*Urban*	*Total*	*Rural*	*Urban*	*Total*
Govt.	Boys	1036604 (51.2)	89424 (49.3)	1126028	253493 (51.2)	39625 (50.5)	293118	1290097	129049	1419146
	Girls	986171 (48.8)	92142 (50.7)	1078313	241624 (48.8)	38778 (49.5)	280402	1227795	130920	1358715
	Total	2022775 (100)	181566 (100)	2204341	495117 (100)	78403 (100)	573520	2517892	259969	2777861
Pvt. Aided	Boys	70788 (55.7)	64034 (53.6)	134822	140229 (61.4)	84210 (55.8)	224439	211017	148244	359261
	Girls	56401 (44.3)	55419 (46.4)	111820	88237 (38.6)	66767 (44.2)	155004	144638	122186	266824
	Total	127189 (100)	119453 (100)	246642	228466 (100)	150977 (100)	379443	355655	270430	626085
Pvt	Boys	15992 (52.8)	8753 (48.7)	24745	14832 (54.5)	21889 (51.8)	36721	30824	30642	61466
	Girls	14319 (47.2)	9215 (51.3)	23534	12405 (45.5)	20372 (48.2)	32777	26724	29587	56311
	Total	30311 (100)	17968 (100)	48279	27237 (100)	42261 (100)	69498	57548	60229	117777
Total	Boys	1123384 (51.5)	162211 (50.9)	1285595	408554 (54.4)	145724 (53.6)	554278	1531938	307935	1839873
	Girls	1056891 (48.5)	156776 (49.1)	1213667	342266 (45.6)	125917 (46.4)	468183	1399157	282693	1681850
	Total	2180275 (100)	318987 (100)	**2499262**	750820 (100)	271641 (100)	**1022461**	2931095	590628	**3521723**

Note: Figures in parenthesis are respective percentages.
Source: DISE 2005-06

To sum up, major indications seen from DISE data thus point out that a large number of children are enrolled *early* in schools. Largest segment of under-age children is actually in government rural schools. A greater tendency to enroll in private schools, aided as well as un-aided in rural areas at an age less than 5 years, was apparent particularly in case of boys.

FIGURE 3

Enrolment Indicating Gender Difference in Rural - Urban Areas



Source: DISE 2005-06.

This preliminary analysis that looks at the distribution of under-age children across States, type of school-management, rural-urban residence and gender differences does not purport to be an in-depth analysis of the issue of under-age enrolment in the country. It is intended mainly to serve as a commentary, based on DISE statistics serves to highlight some of the issues connected with education planning. While it points towards the need to study various reasons in detail as obtaining in different States and rural-urban areas, the aim of this exercise is to flag the issues of stabilizing school entry age (which will also define exit age for pre-primary) in the country and planning for provision for ECCE. These two major issues that have ramifications for children's development and progress through school education, need to be seen in unification in educational planning at the national level.

Issues for Educational Planning

The assessment presented in the foregoing sections pitches the number of under-age children in the country at 35.2 lakhs. However this constitutes only a partial estimate as it

is restricted to under-age enrolment in class I only. Actual number of under-age children in primary schools in the country is likely to be larger when their enrolment in other classes is taken into account. While this large number of children enrolled in school before the eligible age reflects on the inclination of parents to enroll their children in school *early,* the question here is whether these children should be in school at this age. By being in primary school at an age less than 5 or 6 years, they miss out much on needed exposure to ECCE in terms of inputs for good health, nutrition and psycho-social stimulation. The benefit of their participation in school, and the long-term impact on their school performance, yet remains to be seen.

Given the overlap in eligible age for enrolment in ICDS (3-6 years) and primary school (5-6 years), whether of these children enroll in both the places, is another question that needs to be examined. Linked to this issue are other concerns of access and quality of education facilities, for example the availability of pre-primary versus primary school facilities in the areas where under-age children are enrolled in school. As per ICDS norms, an *Anganwadi* (child development centre) is opened for a population of 1000 in rural areas while the national norm for opening a primary school is a population size of 300. Apart from access and quality, other factors that can influence enrolment or participation of children in school vs. ECCE may include parental perception about significance of primary school education/ECCE, costs involved in attending, incentives offered at both places, admission formalities in case of primary school etc. While several such questions need to be understood at the micro level, two macro-level issues that this paper highlights in this context are as follows:

Need to Stabilize School Entry Age

Need to define one chronological age for school at primary stage in India cannot be overstated as the same has implications for exit and entry age for stages before and beyond primary, i.e. pre-primary and upper primary and thereby affecting the age-grade-correspondence throughout a child's education period, besides creating homogeneity in age cohorts. The question then is whether it should be normalised as 5 years (as prevalent in 23 States) or 6 years (as being practiced in twelve States) in India. ~~Perhaps this is not an open question anymore~~.

In India we have already taken a step towards setting 6 as entry age by defining compulsory education age group ~~as~~ 6 -14 for elementary education. Article 21 A, added to the Constitution of India in 2003, directs the State to provide free and compulsory education for 6-14 year-old children. Thus it lays down the age for class I as 6 years when it states: 'The State shall provide free and compulsory education to all children of the age of six to fourteen years in such a manner as the States may, by law, determine'. This Article (awaiting notification) is inconsistent with the existing norms of school entry age in 23 States/ UTs with school entry age as 5. Education being a concurrent subject since 1976, although both Centre and States can legislate, it is stipulated that in case of an inconsistency between the law passed by the Parliament and laws made by the legislatures of the States, the former would prevail. At that stage, therefore, as per the 86th

Constitutional Amendment which specifies 6 as the lower age for compulsory education, the Central legislation specifying 6 as the entry age for class I will prevail. The discrepancy between the Central legislation and the States' legislation will then need to be addressed and the States may need to move towards adopting 6 years as school entry age.

Defining primary school entry age as 6, incidentally is in congruence with the current exit age of ICDS, a major programme for ECCE in the country. ICDS is implemented as a Central programme and has a large presence all over the country wherein children aged 3-6 years are enrolled for pre-school education aimed at building school readiness in children. Research has indicated that high-quality ICDS has a positive impact on psycho-social development and school readiness of children (Chaturvedi 1987, NIPCCD 1992; NCERT 1993; Sood 1987, 1992).

Standardising school entry age as 6 in the country is likely to facilitate a large number of children presently benefiting from ICDS in making a transition to primary school and start school in a better state of preparedness, which is a significant concern for school performance of children. Incidentally, majority of the countries in the world have defined 6 as school entry age as noted earlier from UNESCO statistics.

Planning for Provision of ECCE in the Country

As per the 86th Constitutional Amendment Act, the new Article 45 in the Directive Principles now reads as: "the State shall endeavour to provide early childhood care and education for all children until they complete the age of six years". Thus provision of early childhood education for all children under 6 years is a Constitutional obligation that must be met.

The subject of women and child development is dealt with by the Ministry of Women and Child Development which deals with the ICDS programme. For reasons stated earlier in this paper, joint planning by the Department of Education and the Ministry of Women and Child Development for children aged 3 onwards will go a long way in streamlining the provision of both pre-primary and primary education. The issue of entry age for primary has ramifications for provision of both ECCE and primary stage education as indicated earlier.

Presently, the Department of Education is incurring the education cost of children under the age of six years, who otherwise may be accounted for in ICDS too. However, there is no mechanism of ascertaining the extent of this duplication. There is no system in place for collecting statistics on enrolment of 3-6 years olds that combines enrolment of these children across ICDS, ECCE centres by NGOs, private nursery schools, pre-primary sections attached to primary school and under-age children (5-6 year olds) enrolled in primary school to facilitate educational planning for 3-6 age–group. These gaps in information are likely to influence the planning process. A national system for combining statistics on all kinds of provision of ECCE for children aged 3-6 years will go a long way in facilitating the planning for both pre-primary and primary stages. To conclude, it is desirable to set 6 years as a standard school entry age in the country.

Defining a standard primary school entry age is likely to be a step in the direction of evolving age-grade structure from pre-primary to tertiary education. With improved age-grade correspondence, net enrolment ratios are also likely to improve in the country.

References

Bickel, D.D and Zigmond, N. and Strayhorn, J. (1991): Chronological Age at Entrance to First Grade – Effects on Elementary School Success. *Early Childhood Research Quarterly,* 6 (2), 105-17.

Bisanz, J., Morrison FJ and Dunn. (1995): Effcets of Schooling on the Acquisition of Elementary Quantitative Skills. *Developmental Psychology,* 31 (2), 221-36.

Breznitz, Z and Teltsch, T. (1989): The Effect of School Entrance Age on Academic Achievement and Social–Emotional Adjustment of Children – Follow Up Study of Fourth Graders. *Psychology in the Schools*, 26 (1), 62-68.

Cahan, S, Cohen, N. (1989): Age versus Schooling Effects on Intelligence Development. *Child Development,* 60 (5), 1239-49.

Cameron, M.B. and Wilson, B. J. (1990): The Effects of Chronological Age, Gender and Delay of Entry on Academic Achievement and Retention – Implications for Academic Redshirting. *Psychology in Schools*, 27 (3), 260-63.

Chaturvedi, E. (1987): Impact of Six Years Exposure to ICDS Scheme on Psycho-Social Development, *Indian Pediatrics*, Vol. 24, 153-60.

Crosser, S. L. (1991): Summer Birth Date Children – Kindergarten Entrance Age and Academic Achievement. *Journal of Educational Research*, 84 (3), 140-46.

Dietz, C and Wilson, B.J. (1985): Beginning School Age and Achievement. *Psychology in the Schools*, 22 (1), 93-94.

District Information System of Education (2005-06): New Delhi, National University of Educational Planning and Administration.

Ferreira, F and Morrison FJ. (1994): Children's Metalinguistic Knowledge of Syntactic Constituents – Effects of Age and Schooling. *Developmental Psychology*, 22 (2), 175-89

Government of India, MHRD. (2003): Selected Information on School Education in India.

Jones, M.M and Mandeville, G. K. (1990): The Effect of Age at School Entry on Reading Achievement Scores Among South Carolina Students. *Remedial and Special Education*, 11 (2), 56-62.

Kinard E. M. and Reinhertz H. (1986): Birthdate Effects on School Performance and Adjustment: A Longitudinal Study. *Journal of Educational Research*, 79 (6), 366-72

Langer P. Kalk J. M. Searls D. T. (1984): Age of Admission and Trends in Achievement – A Comparison of Blacks and Caucasians. *American Educational Research Journal*, 21 (1), 61-78.

May D. Cand Welch E (1986): Screening for School Readiness: The Influence of Birthday and Sex. *Psychology in the Schools*, 24 (4), 406-12.

McClelland, M. M, Morrison, F. J. and Holmes, D. L. (2000): Children at Risk for Early Academic Problems – The Role of Learning-Related Social Skills. *Early Childhood Research Quarterly*, 15 (3), 307-29.

Morrison FJ, Smith L. Dow-Ehrenensberger, M. (1995): Education and Cognitive Development – A Natural Experiment. *Developmental Psychology*, 31 (5), 789-99.

Morrison, FJ, Alberts D.M. and Griffith E.M. (1997): Nature-Nurture in the Classroom – Entrance Age, School Readiness, and Learning in Children. *Developmental Psychology,* 33 (2), 254-62.

National Council of Educational Research and Training (1993): Impact of ECE on Retention in Primary Grades – A Longitudinal Study.

Sood, N. (1987): An Evaluation of Non-formal Preschool Education in Mangolpuri ICDS Block. *Technical Bulletin.* Number 1. New Delhi; NIPCCD.

_____ (1992): Preschool Education in ICDS-An Appraisal. *Technical Bulletin*, Number 5, New Delhi, NIPCCD

Sweetland, J. D and De Simone P. A. (1987): Age of Entry, Sex and Academic Achievement in Elementary School Children. *Psychology in the Schools*, 24 (4), 406-12.

Stipek, D and Byler, P. (2001): Academic Achievement and Social Behaviors Associates with Age of Entry into Kindergarten. *Journal of Applied Development Psychology,* 22 (2), 175-89.

Stipek, D. J. (2003): School Entry Age. *In*: Tremblay RE, Barr RG, Peters R DeV eds. Encyclopedia on Early Childhood Development (online). Montreal, Quebec: Centre of Excellence for Early Childhood Development; 2003; 1-5.
Available at http://www.excellence-earlychildhood.ca/documents /StipekANGxp.pdf.
Accessed 5 July, 2007.

UNESCO Statistical Yearbook, 1999, UNESCO

Journal of Educational Planning and Administration
Volume XXII, No. 2, April 2008, pp. 199-211

Promises and Perils of Globalized Higher Education*

M. Anandakrishnan†

Abstract

Varying perceptions on globalization relating to higher education are described in the paper. Distinctions between the processes of "globalization" and "internationalization" are highlighted. The extent to which the foreign education providers operate in India is indicated. In developing the direction and content for higher education, priority should be given to the aspects of internationalization and the positive aspects of globalization. The need for policy perspectives and regulatory mechanisms to avail the promises of the globalization and avoid its perils is highlighted.

Perceptions on Globalization

Within the last decade, there has been a major shift in the concept and practice of international system of higher education, caused primarily by the globalization processes and aided by the developments in information and communication technologies. The push for these developments comes mainly from the countries that see commercial opportunities in new forms of international higher education system. The inclusion of education as a tradable service within the GATS of WTO has given additional momentum to this process.

Depending on the dominant economic paradigms prevailing in the society, there are differing perceptions on the character of globalization and its influence on the society. These perceptions primarily relate to trade, investment and finance among nations as well as their influence on a variety of development sectors, such as health education, environment, industries, culture, and so on. The prominent attributes of globalization are privatization, commercialization, market orientation and profit making. It flourishes under favourable national and international political systems with the active collaboration of key international organizations, such as WTO, IMF, and some bilateral and multilateral aid agencies. Many national commerce, trade and industry associations and powerful international bodies like World Economic Forum and many NGOs and think tanks actively promote the globalization process with conclaves and a barrage of studies

---

* Revised version of the Paper presented at the National Seminar on "Quality, Access and Social Justice in Higher Education", organized by the Kerala State Higher Education Council. Thiruvanathapuram, Feb 1-2, 2008.

† Chairman, Madras Institute of Development Studies (MIDS) and IIT, 79, Second Main Road, Gandhi Nagar, Adyar, Chennai-600020. E-mail: ananda1928@gmail.com

and publications. These studies generally portray all governmental and public sector enterprises as inherently inefficient and non-competitive. They eulogize the performance and downplay the malpractices and failures of private corporate sector, while ignoring the accomplishments and exaggerating the deficiencies of public sector.

The positive aspects of globalization are reflected in those processes, which are less intrusive on the political, economic and social space and more sensitive to the social and economic aspiration of the people at large. Globalization generally adopts transparent and accountable procedures and does not encourage manipulative and unethical approaches in commercial dealings. The desirable impact of globalization is that it enables people from all sections of the society, and from different parts of the world to exchange their knowledge and experiences in different areas of human endeavour.

The adverse perceptions on globalization arise under circumstances that lead to social, economic and political exploitation; aggressive dominance over the national policy systems; insensitivity to the cultural norms and social development priorities; and destructive influence of local industries, environment and traditions.

The impact of globalization has been and continues to be uneven. For some – individuals and countries alike – it has meant opportunity for advancement. However, for others, globalization has meant exposure to increased competition, marginalization and impoverishment. The challenge is to harness the beneficial aspects of globalization, learn from them, and adapt best practices so as to mitigate its negative effects. Globalization in one form or the other is not just irreversible, but also probably unstoppable. However, while globalization may now appear inevitable, the direction and form it may take is something we can – and must – work to shape. It is our responsibility to ensure that globalization serves human interests and is of benefit to all. So far, the impact of globalization has been unequal. For certain sections of the world community, it has been a force for economic growth and social mobility, opening up new opportunities for participation and communication. For a majority of the world population, however, globalization has led to deeper marginalization and impoverishment, widening disparities both within and between countries. Those who suffer from globalization are invariably the sections that are already struggling with exclusion: the poor, women, ethnic minorities and youth. (Matsuura, 2007)

With the progressive liberalization of the Indian economy during the past fifteen years and rapid changes in recent years, the globalization process has become pervasive in almost all national endeavours. This paper is limited to the manifestations of globalization in Indian higher education system. In this context it is necessary to avoid the terminological confusion between ***globalization*** and ***internationalization***. These two processes are entirely different in character and influence.

Indian Scenario

In India the foreign universities offer a variety of undergraduate and postgraduate courses practically in all faculties. Students are invited to enroll on the home-campus, in undergraduate courses in the liberal arts, business, and medicine. Also on offer are

postgraduate courses in engineering, technology, sciences, social sciences, law, arts and design, business administration, international business, banking, finance, and management. One of these institutions is offering direct web-based learning. The programmes offered in India are predominantly in the professional areas of management and engineering. The management courses that lead to an MBA degree are in the specialized areas of marketing, finance, information systems, mass communications, and international affairs. Other postgraduate management programmes are in hotel management, healthcare, and tourism. Engineering undergraduate programmes are available in textile engineering, computer engineering, information technology, and communications technology. There are also postgraduate programmes in computer science, computer and communications technology, and information technology. Also on offer are undergraduate programmes in arts, business, management, and law.

The number of foreign education programmes offered in India is rapidly increasing as judged by the increase in the number of advertisements and the associated foreign countries during the period 2000 to 2006. The advertisements are aimed at attracting students to academic institutions abroad or inducing them to register for diploma and degree programmes of these institutions that are offered in India itself.

A survey of advertisements that appeared in 14 national newspapers between July and December 2000, provides information on the nature of the programmes, the background and distribution of the universities and institutions offering them and the academic standing of the Indian partners. A perusal of these advertisements show that the largest number of advertisers (who total 144) is from the United Kingdom (53) followed by Australia (40), the United States (24), Canada (7), and New Zealand. Other countries advertising are Bulgaria (2), Cyprus (1), France (2), Hong Kong (China)(1), Ireland (1), Mauritius (1), Nepal (2), Romania (1), Russia (1) and Switzerland (3). While 117 of the institutions are seeking to attract students to their countries, the remaining 27 are offering programmes in India. As many as 46 foreign providers are not recognized or accredited in their own countries. Besides, 23 of the 26 Indian partners are not affiliated with any Indian university – an indication that they have entered the academic arena primarily for commercial gain (Powar, 2001).

Another survey between January to December 2006 shows the number of advertisements has increased to 563, consisting of United Kingdom (189), Canada (79), Australia (76), the USA (47), China (35), Ireland (23), New Zealand 18), Singapore (18), Switzerland (17), France (11), Russia (11) and others (39). Institutions from 32 foreign countries had programmatic collaborations with Indian institutions. Of these only two had the approval of AICTE. Five of the Indian partners were unapproved institutions. 24 of them were neither affiliated to any Indian university nor approved by any national statutory agency. Twenty-seven of them were in the form of twinning programmes (AIU Database, 2006).

The current wave in globalized higher education is motivated by profit. Increasingly sophisticated marketing techniques are being used to meet demands and create niches for "educational products." Universities from the developed countries are offering "off-shore

degrees," in collaboration with non-educational institutions; that the Internet is being used to deliver degrees; that there are few controls concerning quality; and that these programmes are being offered not only by respected institutions but also by low-prestige schools simply selling worthless certificates (Altbach, 1999).

In India, globalization of higher education has taken a commercial form, with academic considerations often taking a backseat. In principle, no objection can be raised against foreign universities trying to recruit students for study outside India. In a way foreign study meets the need for higher education of aspiring students who are unable to gain admission to the institutions of their choice in India. The objection is against the "selling" of degrees of questionable standard by un-recognized institutions, sometimes in collaboration with some unrecognized Indian institutions. The franchising of foreign programmes has become common but the parent institution exercises little or no supervision and there are few controls relating to the quality or financial arrangements.

From the Indian point of view, the activities of such institutions need to be effectively monitored and regulated. Unfortunately, the legal instruments, such as the 1956 University Grants Commission Act or the 1987 All India Council for Technical Education Act are inadequate for this purpose at present. Hence, attention should be devoted to finalize and adopt a policy relating to the operation of foreign institutions in India.

Concept of Internationalization

Contrary to the overwhelming commercial motivation of the globalization process, internationalization is related to effective diffusion of basic attributes of a domain (for example, higher education), such as structure, organization, governance, content, quality, standards, approaches and practices among the countries and their institutions. It is a positive sum process by which the best practices of one country are adopted by others. Whenever globalization processes adopt the concepts of internationalization in any sphere of national development, the net impact on the society is positive. Nations, which are capable of making intelligent choices out of the promising globalization opportunities or from the inevitable situation of pressures, should try and incorporate the concepts of internationalization as their priority strategy. Blind faith in globalization is likely to result in unholy alliances among particular groups unmindful of the consequences to the national objectives.

According to the International Association of Universities (IAU), the manifestations of true internationalization processes of higher education should lead to (IAU, 2000 a):

1. Networking of institutional interaction based on area/ discipline oriented exchange.
2. Idea of international common syllabus in natural sciences and technical subjects for ensuring technical compatibility at graduate level.
3. International mobility of younger students and the partnership among the equals.
4. Syllabus ensuring uniform standards.

5. International syllabus as a larger normative framework and a common demonstrator in scientific and technical subjects up to Bachelor's and Master's level.
6. Prevention of indiscriminate brain drain from the developing countries, and
7. Promotion of transparency in the academic processes.

Globalization Vs. Internationalization

UNESCO Position Paper (2003), describes in detail in a thought provoking manner the salient issues relating to the internationalization of higher education and points out that the two terms, 'Globalization" and 'Internationalization' are often mistakenly used interchangeably. It makes a careful distinction between the process of globalization and internationalization of higher education. It characterizes globalization as:

> *"a multifaceted process with economic, social, political and cultural implications for higher education. It poses new challenges at a time when nation-states are no longer the sole providers of higher education and the academic community no longer holds the monopoly on decision-making in education. Such challenges not only address issues of access, equity, funding and quality but also those of national sovereignty, cultural diversity, poverty and sustainable development. A further and even more fundamental concern is that the emergence of cross-border higher education provision and trade in education services bring education within the realm of the market and that this may seriously affect the capacity of the state to regulate higher education within a public policy perspective. Declining policy capacity of the state could affect weaker and poorer nations and benefit the more prosperous ones."*

The Position Paper interprets internationalization "*as one of the ways in which higher education is responding to the opportunities and challenges of globalization. Internationalization includes a broad range of elements, such as curriculum, teaching/learning, research, institutional agreements, student/faculty mobility, development cooperation and many more.*"

The General Agreement on Trade in Services (GATS) broadly defines internationalization at the national, sectoral, or institutional level as "*the process of developing/implementing policies and programs to integrate an international, intercultural or global dimension into the purpose, functions and provision of post-secondary education.*" Cross-border education is seen as one subset of internationalization strategies.

According to the definition of the European Union, "*Globalization means that the flows of goods, services, capital, technologies and people are spreading worldwide, as countries everywhere open up to wider contact with each other.*"

The distinction between 'globalization' and "'internationalization' as described by some others is as follows:

> "*Globalization is the flow of technology, economy, knowledge, people, values, idea across borders. Globalization affects each country in a different way due to a nation's individual history, traditions, culture and priorities*" and "*Internationalization of higher education is one of ways a country responds to the impact of globalization yet, at the same time respects the individuality of the nation*" (Knight, 2004).

Internationalization of higher education is the process of integrating an international/intercultural dimension into the teaching, research and service functions of the institution (Kanjananiyot, 2003).

Whereas "Globalization" tends to homogenize social, economical, cultural and academic processes and leads to the marginalization of peripheral cultural and other social processes, "Internationalization" looks for participatory intervention among the equal partners. But this "equal" partnership between advanced countries and developing countries does not always ensure equal treatment among the partners (IAU, 2000 a).

Regulatory Responses

In the light of the above distinction between globalization and internationalization, the need for regulatory mechanism arises in the context of the globalization phenomenon. According to the UNESCO Position Paper:

> *"Globalization and recent developments in the international delivery of higher education have generated a number of new terms, including 'borderless', 'transnational', 'trans-border' and 'cross-border' education. Borderless education refers to the blurring of conceptual, disciplinary and geographic borders traditionally inherent to higher education. It is interesting to juxtapose borderless education with these other new terms. Borderless acknowledges the disappearance of borders while the other terms actually emphasize the existence of borders. Both approaches reflect the reality of today. In this period of unprecedented growth in distance education and e-learning, geographic borders would appear to be of little consequence. Yet, borders gain increased importance when the focus turns to regulatory responsibility, especially related to quality, access and funding. Therefore, while full recognition is given to the existence and importance of borderless education, the notion of education moving across national jurisdictional borders is salient to this discussion and the term cross-border will be used. No major distinction is made between the terms cross-border and trans-border education."*

In discussing the nature of regulatory policies, it becomes necessary to keep in view the following four key elements of globalization relevant to higher education:

- The growing importance of the knowledge society/economy;

- The development of new trade agreements, which cover trade in education services;
- The innovations related to ICTs; and
- The role of the market and the market economy.

In the context of current developments it is not enough to establish regulatory mechanisms for national institutions without having corresponding measures to guide and regulate the international institutions and programmes operating within the country and those offered by national institutions in other countries. Most of the countries have not really considered as a priority the setting up of specific procedures to assessing Transnational Education (TE). Very often, there is no official regulation or control of TE qualifications. In some countries, these can be recognized if TE providers belonging to a national system of higher education award them. In other countries, they are treated as "private" institutions, which can receive an accreditation, or, at the contrary, which are not allowed to deliver diplomas with official value. The lack of quality control is seen as one of the most important problems (Kaufman, 2001). A brief overview of the nature of regulatory practices relating to international programmes in higher education adopted by some of the countries around the world is shown in Anandakrishnan (2004).

Globalized Higher Education

The expansion of activities relating to higher education takes place across boundaries in many different forms. Educational exchanges among nations and institutions in one form or the other were by and large non-commercial until the WTO characterization of education as a tradable service with emphasis on commercial aspects. The non-commercial nature of educational interactions is becoming outdated and is vanishing. Market forces influence the substance and direction of the educational programmes, thereby shaping the globalized educational transactions across boundaries, in whatever mode they take place. The imperfections of the market systems in many countries in turn introduce distortions in the educational contents under the influence of globalization.

> *"In the world of higher education, markets and globalization are beginning to influence universities and shape education, not only in terms of what is taught but also in terms of what is researched. In the sphere of teaching, there is a discernible departure from the liberal intellectual tradition where education was about learning across the entire spectrum of disciplines. Choices of students were shaped by their interest. There was never a perfect symmetry. Even so, universities endeavoured to strike a balance across disciplines, whether literature, philosophy, languages, economics, mathematics, physics or life sciences. But this is changing, as students and parents display strong revealed preferences to demand higher education that makes young people employable. The popularity and the availability of courses are thus being shaped by markets.*

> *The employability of students is not simply a force that is pushing to create more places for vocational courses in higher education. It is also inducing universities to introduce new courses, for which there is a demand in the market, because these translate into lucrative fees as an important source of income. Similarly, markets are beginning to exercise an influence on the research agenda of universities as resources for research in life sciences, medicine, engineering or economics are abundant while resources for research in philosophy, linguistics, history or literature are scarce. There is a premium on applied research and a discount on theoretical research"* (Nayyar, 2007).

The skewed demand and supply situations in some markets have resulted in rapid commercialization of higher educational institutions. Philanthropy in education by genuine charitable societies is fast disappearing under the dominance of individuals and family groups with the sole intention of profiteering. The international collaborators, unconcerned with the unethical practices of these institutions, add sanctity to them, of course, for a price. Corporate needs and international manpower shortages in selected sectors have led to disproportionate capacity expansion in some disciplines, such as IT and Computer Sciences and short supply in many core fields.

The preponderant emphasis on market needs tends to deprive the higher educational institutions of their fundamental character. Universities are not in the business of making profits. The private universities have contributed to erosion of this principle, including diminishing academic values and ethics. Undoubtedly the spirit of competition is vital for the growth of universities and colleges but not in profit making but in their goals to achieve high academic standards and quality, to offer innovative programmes of teaching and research and to attain eminence in research and development. Certainly funds are needed for accomplishing these goals. Many prestigious institutions have managed to mobilize resources for this purpose through legitimate and transparent manner, not only from the government and other public sources but also from the private and corporate sectors and the alumni based on the credibility and pre-eminence of their record.

Content Issues

Academic institutions and their respective governing bodies have a major responsibility to guard against drawn into the vortex of globalization of higher education and dictates of vested interests, domestic or international. There are four aspects to this responsibility.

Firstly, the nature of sustained academic programmes that are offered by the higher educational institutions should address the holistic needs of the society and economy and not be moulded by momentary considerations and market pressures. There could be programmes developed for meeting the market needs but these should not constitute the core of the institutional long-term goals.

Secondly the curricular framework for the programmes in terms of duration, credit requirement, elective options, graduation requirements etc., should follow the best international practices of reputed institutions around the world and not be influenced by

the local interest groups. The university has the responsibility to create the kind of human talent that can respond to the long term needs of the fast changing society and not produce individuals dependent on routine practices of a particular sector. The bogey of employability often voiced by some segments of the commercial world should be challenged effectively and enlist their co-operation in the holistic educational efforts.

Thirdly, the curricular content in terms of syllabi, teaching, learning, evaluation methods, books, references, assignments, laboratory practices etc., should be so designed and implemented as to stand up to the scrutiny of the quality accrediting agencies - national or international. The educational contents may accommodate to reasonable extent the market needs but should not be entirely tailored to the needs of a particular industry group.

Fourthly, the temptation to be mechanically linked to programmes of other countries should be moderated to take advantage of the best contents from around the world. International academic collaborations should not be based mainly by the attractions of financial gains only. The reputation of the collaborating institution, and the worth and relevance of the academic programmes offered should be evaluated in the best interest of the students.

Role of Technologies

The globalization processes are, in part, driven by science and technology, particularly new information and communication technologies. These processes in turn have strongly influenced the ways in which scientific knowledge and new technologies are produced and disseminated. While new opportunities are available to promote social and economic development for the benefit of all, knowledge is becoming an ever-more important strategic advantage for a seemingly decreasing number of countries. The sharing of knowledge, making use of all the communication tools we have at our disposal, is becoming crucial. Only through such sharing can globalization and the progress of science and technology be made to benefit all, for example, in human development, health care, environmental issues, disaster preparedness, and the safe and dependable provision of water and energy. Yet globalization has also created new challenges and policy questions that cannot be ignored. Increasingly, ethical questions have emerged in the international debates on such topics as biodiversity, genetic research, cloning, or stem cell research. There are also questions of intellectual property rights and knowledge sharing (GINKEL, 2007).

The tools of information and communication technologies for online education and knowledge exchange are becoming prolific, innovative and user friendly. The new technologies have increased the global reach of higher education. However, there are many imponderables such as the necessary bandwidth availability; technological sophistication of the recipient country and its institutions; the suitability of the courses and their contents to the aspirants for knowledge, skills and qualifications; affordability and - most important of all – the reputation of the institutions offering online education.

Policy Issues

In the emerging contemporary scenario, higher education is being increasingly treated as a commercial commodity, offered at high price at the national level and as tradable product across borders to those who can afford it. This has resulted in the emergence of new types of education providers, innovative methods of delivery, and new types of partnerships, presenting new challenges in framing policies and regulations to monitor and enforce quality standards to the educational process. The current trends indicate domination by commercial and financial interests (IAU, 2000).

In many of the developing countries, there has been a high degree of privatization of the higher education system. In countries, such as India, the response to rapidly growing demand for higher education, including professional education, is to liberally allow the private sector investment in higher education. The globalization of higher education is now seen as a logical extension of this phenomenon. While there are sufficient legal provisions to ensure the quality standards of the education imparted by the approved private national institutions in India, there is hardly any authority to regulate and assure the standards of the programmes offered by foreign institutions on their own or in collaboration with Indian institutions.

The trends in globalization of higher education in India were articulated in the first ever national level conference on the subject, organized by the National Institute of Educational Planning and Administration (NIEPA) in 2000. It highlighted the quantum and variety of foreign programmes offered in India and their implications to India's position in the on-going preparations for the GATS negotiations (Anandakrishnan, 2000).

The First Global Forum of UNESCO on International Quality Assurance, Accreditation and the Recognition of Qualifications in Higher Education in its Report on "Globalization and Higher Education" considered such issues as: Is higher education a public or a private good? How does trade in educational services threaten the notion of public good? Can public good agendas be shared between public and private providers? How can new providers of higher education contribute to promoting access? How does the commercialization of higher education and the emerging market affect issues of equity in particular in developing countries? It also focused on policy issues that need to be addressed and the best ways national governments and institutions should prepare for these new developments (UNESCO, 2002) .

The draft resolution during the UNESCO General Conference in 2003 states that *"unregulated growth of higher education markets could weaken the sustainability of national higher education systems, particularly in less developed countries;"* and urged all Member States to *"(a) develop policy frameworks that will facilitate active participation in the knowledge society, narrowing the knowledge and technological divide between developed and developing countries, maximizing the benefits and minimizing the threats of globalization, and to promote quality in and equitable access to higher education; and (b) enhance national capacity for assuring quality and equity of higher education, using comparable criteria for national and transnational providers;"*

There is a substantial body of international opinion among major academic institutions around the world that holds that:

> *"Higher education exists to serve the public interest and is not a 'commodity', a fact which WTO Member States have recognized through UNESCO and other international or multilateral bodies, conventions, and declarations. The mission of higher education is to contribute to the sustainable development and improvement of society as a whole by: educating highly qualified graduates able to meet the needs of all sectors of human activity; advancing, creating and disseminating knowledge through research; interpreting, preserving, and promoting cultures in the context of cultural pluralism and diversity; providing opportunities for higher learning throughout life; contributing to the development and improvement of education at all levels; and protecting and enhancing civil society by training young people in the values which form the basis of democratic citizenship and by providing critical and detached perspectives in the discussion of strategic choices facing societies. Given this public mandate, authority to regulate higher education must remain in the hands of competent bodies as designated by any given country. Nothing in international trade agreements should restrict or limit this authority in any way"* (AUCC, 2001).

In developing the policy focus, it is necessary to consider the possible hurdles such as Mutual Recognition Agreements (MRA) on qualifications and licensing; citizenship requirements for certain assignments in higher education; investment caps for higher education and joint venture requirements in some countries; visa quotas; intellectual property rights for learning materials; and separate central and state rules to be satisfied.

Conclusion

In evolving the higher education programmes and their structure and contents it is necessary to recognize the distinction between the processes of globalization and internationalization. Priority should be assigned to the internationalization aspects rather than globalization. Countries like India may see commercial opportunities in the globalization process and hence show an ambivalent attitude towards foreign education providers in India. However, there is no clarity, as yet, about the benefits and costs of international education programmes offered in India. Recently there has been a large-scale proliferation of foreign programmes in higher education, raising serious concerns about the quality, value and credibility of many of them.

Global trade in education may be advantageous to some countries, such as Australia, UK, USA and India, with a well-developed capacity for exporting higher education and prove to be disadvantageous to others in terms of funding or access. There are concerns that the presence of foreign providers may decrease public funding for higher education, thereby jeopardizing domestic publicly funded institutions.

Market forces and globalization processes should not be allowed to shape the higher education system. Instead, the agenda for higher education should be so evolved as to capture the world wide opportunities, and avoid the dangers unleashed by markets and globalization. Based on the deliberations in various national and international forums, the issues and options for policy orientation to take advantage of the positive aspects of globalization of higher education system should be considered to protect the national interest from spurious programmes.

References

Altbach, Philip (1999): The Perils of Internationalizing Higher Education: An Asian Perspective. *International Higher Education, Spring 1999.* Boston. USA

AIU Database (2006): Association of Indian Universities, New Delhi.

Anandakrishnan, M. (2000): Coping with Internationalization of Higher Education. *In* "Internationalization of Higher Education: Issues and Policy Suggestions". National Institute of Educational Planning and Administration, New Delhi, Jan 2000. p. 79-81.

Anandakrishnan, M. (2004): *Internationalization of Higher Education: Policy Concerns.* National Conference on "Internationalization of Higher Education – Issues and Concerns". National Institute of Educational Planning and Administration, New Delhi. August 26-27, 2004.

AUCC (2001): Joint Declaration on Higher Education and GATS Association of Universities and Colleges of Canada, September 2001.
(www.aucc.ca/_pdf/english/ststements/2001/gats_10_25_e.pdf)

Ginkel, Hans van (2007): Proc. International Conf. on Globalization: Challenges and Opportunities for Science and Technology. August 23-24, 2006. Yokohama, Japan; UNESCO, Paris.

IAU (2000): Towards a Century of Cooperation: Internationalization of Higher Education, IAU Statement. Prepared for the UNESCO World Conference in Higher Education, 1998, and formally adopted by the 11th IAU General Conference as part of the IAU Policy 2000.

IAU (2000 a): International Association of Universities, Eleventh General Conference; Durban, South Africa, August 2000.
(www.unesco.org/iau/gc-speeches/wg_internationalization.html

Kanjananiyot, Porntip (2003): Keynote Address on Internationalization of Higher Education – Concepts and Importance. Workshop of Directors of University Centers for International Relation/Affairs, August 25, 2003. Prince of Songkla University, Phuket Campus, Thailand.

Kaufmann, Chantal (2001) : *The Recognition of Transnational Education Qualifications.* Seminar on Transnational Education. Malmo, Belgium, March 2-3, 2001.
www.esib.commodification/document/Transnational_Education_Malmo.htm

Knight, Jane (2002): Trade Creep: Implication of GATS for Higher Education Policy. *Journal of International Higher Education*, Boston, USA.

Knight, Jane (2004): Trade in Higher Education Services – The Implication of GATS. (Article published by the Observatory of Borderless Education)
(www.columbus-web.com/en/partj/trade.pdf)

Matsuura, Koichero (2007): Proc. International Conf. on Globalization: Challenges and Opportunities for Science and Technology, August 23-24, 2006. Yokohama, Japan; UNESCO, Paris.

Nayyar, Deepak (2007): Globalization: What Does It Mean for Higher Education? *Economic and Political Weekly*. Vol. XLII(50), pp. 30-35, Dec. 15-21, Mumbai.

Powar K.B. and Veena Bhalla (2001): International Providers of Higher Education in India, *International Higher Education,* Boston, USA, Spring 2001.

UNESCO (2002): Globalization and Higher Education. First Global Forum on International Quality Assurance, Accreditation and the Recognition of Qualifications in Higher Education; October 17-18, 2002; UNESCO, Paris.

UNESCO (2003): Higher Education in a Globalized Society. UNESCO Education Position Paper, 2003. UNESCO, Paris.

Journal of Educational Planning and Administration
Vol. XXII, No. 2, April 2008

CONTENTS

VOLUME 43 NUMBER 4 APRIL 2008

A Quarterly devoted to dissemination of knowledge in the fields of Industrial Relations and Human Resources, including relevant aspects of labour relations, personnel management and social and economic issues. Besides, communications from policy makers, social and economic thinkers, managers and union leaders and Book Reviews are also incorporated.

EDITOR: RAMA J. JOSHI

Subscription Rates : for India - Rs. 600.00 for one year; Rs. 1500.00 for three years; Rs. 2400.00 for five years; and Rs. 160.0 for a single copy. For foreign countries (Air Mail) - $100 for one year; $275 for three years and $375 for five years. For foreign countries - (Sea mail) - $65 for one year; $175 for three years; and $250 for five years.

Draft payable to
SHRI RAM CENTRE
FOR INDUSTRIAL RELATIONS AND HUMAN RESOURCES
4, Safdar Hashmi Marg, New Delhi-110 001.
Phone : 23352410/12/14/15, 23351953 Fax : 011-23351953

Journal of Educational Planning and Administration
Volume XXII, No. 2, April 2008, pp. 213-220

RESEARCH NOTES/COMMUNICATIONS

Comparing Student Loan Programs in Latin America and Beyond*
Key Indicators

Domenec Ruiz Devesa**
Andreas Blom**

Abstract

Despite the many student loan programs in Latin America and the Caribbean, there is scant information regarding their functioning. Student loan programs are increasingly used as an important policy instrument to promote equitable access to higher education. This note brings some comparative information regarding student loan programs in Latin America and the Caribbean within a global context. The note assembles information derived from the World Bank's technical assistance to several student loan programs. According to the number gathered, there seèms to be a positive relationship between the penetration rate and financial sustainability as measured by low administration costs and low default rates, although caution is warranted given the comparability problems among programs.

Introduction

Despite the many student loan programs in Latin America and the Caribbean, there is scant information regarding their functioning. Student loan programs are increasingly used as an important policy instrument to promote equitable access to higher education.

* This paper was presented at the first Pan-American Conference on Student Loans, Lima, March 2007, organized by The World Bank, the Inter-American Development Bank and Universia. The proceedings of the conference will be published in Spanish in 2008. We thank Erik Bloom and Jorge Tellez for their comments. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the view of the World Bank, its Executives Directors, or the countries they represent.

** Education Sector, Latin America and the Caribbean Region Social and Human Development Unit, The World Bank, 1818 H Street, NW, Washington DC-20433,USA.
Emails: druizdevesa@worldbank.org; and ablom@worldbank.org

However, student loan programs require strong institutional capacity, sophisticated technology, and highly qualified financial personnel to be effective and sustainable.

Despite the numerous experiences in this field, there is lack of comparative information and dissemination of best practices in the Latin American and Caribbean context. Sharing experiences from Latin America and the Caribbean and discussion of best practices from outside the region was the objective of the first 'Pan-American Student Loan Conference', held in Lima in March 2007.

This note brings some comparative information regarding student loan programs in Latin America and the Caribbean within a global context. The note assembles information derived from the World Bank's technical assistance to several student loan programs in Latin America and the Caribbean and other readily available information from loan programs elsewhere. It presents key indicators and touches upon the factors influencing the indicators, but stops short of drawing lesson learned, since this requires a deeper discussion of each loan scheme. The note presents four key indicators for student loan programs: penetration rates, administration costs, delinquency rate, and default rates. Although being very important, information regarding socio-economic composition of student borrowers was available only for a very small set of programs. It is, therefore, not shown. The note was constrained by lack of information. Therefore, it is not comprehensive in two ways: (i) some countries that are not included in this note, equally loan have student loan programs; and (ii) in the countries included in this note, additional programs exist, in particular loan programs run by non-governmental education institutions and commercial banks.

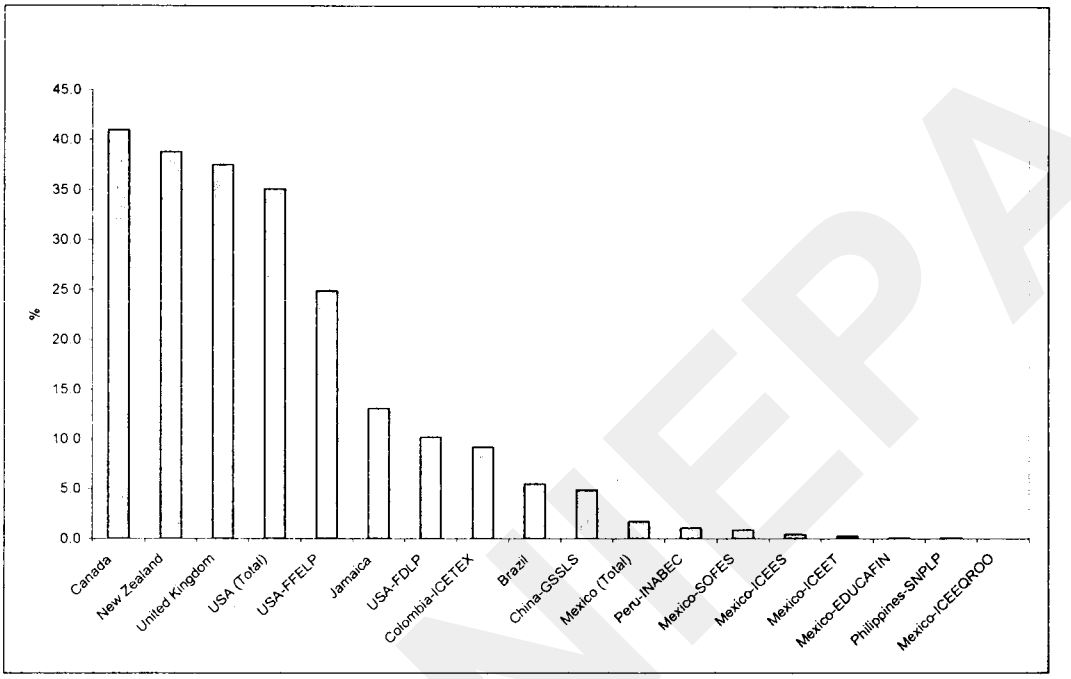
Penetration Rates

The penetration rate indicates the number of students enrolled in higher education that benefit from a student loan. It is defined as the number of students who received loans as a percentage of the national student population.

A higher penetration rate indicates both higher availability of loans and higher reliance on student loans as a way for households to finance the costs of tertiary education. With 13 percent, the student loan program in Jamaica has the highest penetration rate in Latin America and the Caribbean region, while Colombia has the highest penetration rate among the included Latin America countries. Nine percent of the Colombian student population received a student loan in 2006.

FIGURE 1

Beneficiaries of Student Loan (as % of Total Estimates)



Note: The penetration rate is the ratio of students benefiting from student loans in the latest year available on which information is and the overall student population enrolled in higher education.

Source: SOFES (2006); ICEES (2006); ICETEX (2006); INABEC (2006); Suzuki, Blom, and Yammal (2006) for ICEET, ICEEQROO, and Educafin in Mexico; United Kingdom Student Loans Company Limited (2005); Canada Student Loans Program (2004); New Zealand Student Loan Scheme (2006); US Office of Post-Secondary Education Website (2006) for the US; Kitaev et Alter (2003) for the Philippines; Shen and Li (2006) for China; World Bank (2002), for Jamaica; and World Bank EdStats Website (2006) for national enrolment in higher education).

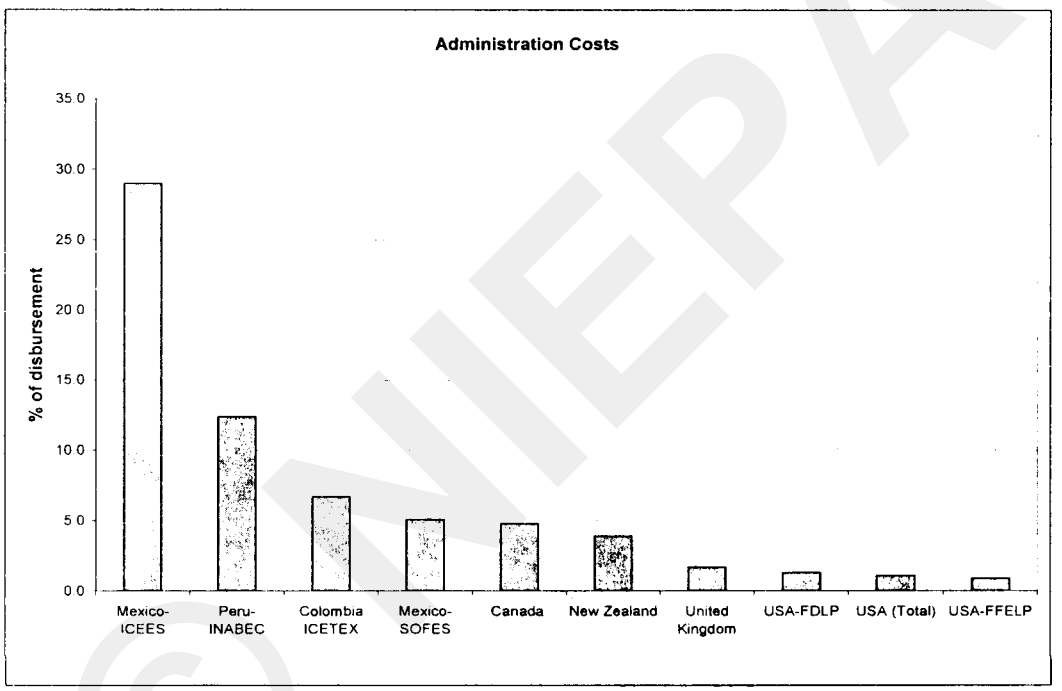
Administration Costs

The indicator on administration costs is calculated as the total costs of administration in the organization's accounting year, divided by the loan amount disbursed for the same year. This was the most available indicator. Another similar indicator - the cost of administration as a share of the book value of the loan portfolio - was also frequently used, but less so. The first indicator tends to be more volatile, since annual lending shows higher volatility than the book value of the loan portfolio. However, the book value could differ significantly from the expected value of the portfolio if defaulted loans are not written off, which has been the case for some student loan organizations in Latin

America. Therefore, we measure administrative efficiency as a share of loan amount disbursed for the same year. For some programs administration costs related to administration of grants and other activities are included. It was not possible to identify costs for student loans administration exclusively.

FIGURE 2

Administration Costs of Student Loans (as % of Total Disbursements)



Source: United States Government Accountability Office (2005); ICEES (2006); INABEC (2006); ICETEX (2006); SOFES (2006); New Zealand Student Loan Scheme (2006); United Kingdom Student Loans Company Limited (2005); and Canada Student Loans Program (2004).

Note: ICEES, Mexico made a policy decision to limit lending in 2005 in order to focus on repayments of the existing portfolio. From 2000 - 2005, the average administrative cost in percent of the yearly disbursement loan amount was 21 percent.

In the case of Latin America, it is evident that administration costs are relatively high compared to administrative costs in high-income countries. Several factors could explain this difference: (i) economies of scale in student lending. The loan programs in Latin America are relatively smaller; (ii) use of technology; (iii) degree of outsourcing of administration; (iv) government oversight, political interference in the day to day management of the loan scheme, and accountability of student loan organizations; and (v) institutional capacity, as well as stability and level of professionalization of the institutional leadership and staffing.

Delinquency and Default Rates

If the interpretation of the above two indicators is relatively straightforward, this task becomes more difficult when assessing performance in terms of financial sustainability and financial management. Student loan recovery is a critical aspect in terms of financial self-sufficiency, ability to grow, and long term sustainability. However, information on default (loans that are deemed uncollectible and lost) and delinquency (loans with loan repayments in arrears) are rarely publicly available in Latin America. In addition, definitions of default and delinquency vary substantially from program to program, since the definition of an uncollectible loan is sometimes based on upon national banking law (such as the number of months a loan has been in arrear), occasionally based upon public administration law, and sometimes upon institutional estimations (does the collector deemed the debtor unable to pay now and in the foreseeable future). Therefore, the default and delinquency rates showed below are not comparable.

TABLE 1
Delinquency Rates

Institution	*Delinquency Definition*	*Delinquency Rate (%)*	*Year*
Aguascalientes, Mexico	Percentage of loans with more than three months in arrears	21.9	2005
Canada	Percentage of loans in arrear	20.0	2003/ 2004
ICEES, Mexico	Percentage of loans with more than one year in arrear	18.0	2002
ICEET, Mexico	Percentage of loans with two or more payments in arrears	28.2	2005
ICETEX, Colombia	Percentage of loans with more than two months in arrear	16.3	2005
SOFES, Mexico	Percentage of loans with more than one month in arrear	7.4	2005

Source: Suzuki, Blom, and Yammal (2006) for ICEET and Aguascalientes, Mexico, ICEES (2006); INABEC (2006); ICETEX (2006); SOFES (2006), and Canada Student Loans Program (2004).

TABLE 2
Default Rates

Institution	*Default Definition*	*Default Rate (%)*	*Year*
Canada	Three-year default rate (the ratio of the cumulative amount of all loans deemed in default for the period covering the year of consolidation and the subsequent two years – to the total amount of all loans consolidated in that year. A loan is deemed in default when it is in arrears for more than 270 days.	25.4	2004/ 2005
ICEES, Mexico	Percentage of loans with loan payments overdue more than four years	17.6	2002
ICEET, Mexico	Percentage of loans with loan payments overdue more than one year	11.3	2005
New Zealand	Percent of the cohort that started repayments in 1992 that have not fully repaid the loan as of June 30, 2006 (Cohort default rate)	18.0	2005/ 2006
The Philippines	Percentage of loans unpaid without further specification	98.0	2003
USA (federal programs)	Percentage of borrowers who began repaying their loans between Oct. 1, 2003, and Sept. 30, 2004, and who defaulted before Sept. 30, 2005	5.1	2005

Source: Suzuki, Blom; and Yammal (2006) for ICEET and Aguascalientes; Mexico; ICEES (2006); INABEC (2006); ICETEX (2006); Canada Student Loan Program (2007); Kitaev et Alter (2003) for the Philippines; Office of Post-Secondary Education Website (2006) for the US, and New Zealand Student loan scheme (2006).

Note: For SOFES the institutional default rate is not reported because it is technically zero since bad loans are sold back to the universities.

Concluding Observations

There are many factors that could explain the difference in the outcome of the student loan programs shown above: (i) sophistication of credit system, including reporting to credit bureaus and the economy-wide use of credit bureaus; (ii) political will to pursue bad payers capable of paying; (iii) labor market conditions, such as level of unemployment; (iv) quality and relevance of education; (v) social background and academic preparation of borrower; (vi) sophistication of collection mechanisms, for

example, through instruments to defer payments of borrowers in temporary hardship, and outsourcing to professional collection companies; (vii) level of subsidy in student loan, for instance through interest subsidies; and (viii) institutional capacity and leadership.

It is likely that there are many short and long term linkages between the four aspects of student loans programs presented. For example, there seems to be a positive relationship between the penetration rate and financial sustainability as measured by low administration costs and low default rates. In the OECD countries included in this study – the US, Canada, the UK and New Zealand—penetration rates are high while administration costs and default rates are low. Hence, a sound financial management is more likely to lead to a scaling-up of a program. Another potential trade-off is the link between socio-economic background of borrowers and their probability of paying student loans. In addition, factors not benchmarked in this note are equally critical. In particular, continued government investments in student loans are essential for a large scale program. However, the scale and form of this subsidy is subject to discussion, since this has consequences for the costs and impact of a loan program. It is important to better understand factors behind the above indicators and trade-offs through more benchmarking, knowledge sharing, and research. This would lead to better and larger student loan programs. Consequently, more low-income students could benefit from loans, access tertiary education, and escape from poverty.

References

Canada Student Loans Program (2006): 2003-2004 Annual Report. http://www.hrsdc.gc.ca/en/learning/canada_student_loan/publications/index-e.shtml

_____ (2007): 2004-2005 Annual Report. http://www.hrsdc.gc.ca/en/learning/canada_student_loan/publications/CSLP-AR-0405E.pdf

ICEES (2006): Informe de Cierre, Sonora, Mexico. http://www.creditoeducativo.gob.mx/

ICEET (2007): http://www.tamaulipas.gob.mx/gobierno/secretarias/sec_educacion/iceet/objetivos.htm

ICETEX (2006): El impacto de Crédito Educativo en Colombia, ICETEX, Bogota, Colombia. http://www.icetex.gov.co/

INABEC (2006): http://www.minedu.gob.pe/becas/

Kitaev, Igor, Teresita Nadurata, Virginia Resurrección y Freddie Bernal (2003): "Student Loans in the Philippines. Lessons from the Past", *Student Loans Schemes in Asia*, UNESCO-International Institute for Educational Planning, Bangkok, Thailand.

Ministério da Educação: "RELATÓRIO DE GESTÃO, Fundo de Financiamento ao Estudante do Ensino Superior – FIES, Período: 02/01/2005 a 31/12/2005. Ministry of Education, Brazil. http://portal.mec.gov.br/sesu/arquivos/pdf/FIES/relatorio_gestao_2005_fies.pdf

New Zealand Student Loan Scheme (2006): Annual Report. http://educationcounts.edcentre.govt.nz/publications/downloads/SLS_Annual_Report_2006 (Web).pdf

Shen, Hong, and Wun Li (2006): A Review of the Student Loan Scheme in China. *Student Loans Schemes in Asia*, UNESCO-International Institute for Educational Planning, Bangkok, Thailand.

SOFES (2006): Informe de Avance. Mexico City, Mexico. http://www.sofes.com.mx/

Suzuki, Yoshi., Andreas Blom, and Cesar Carlos Yammal, (2006): Assisting Students in Tertiary Education in Mexico. Unpublished paper.

United Kingdom Student Loans Program (2005): 2004-2005 Annual Report. http://www.slc.co.uk/PDF/annualreportL2005.pdf

United States General Accountability Office (2005): Challenges in Estimating Federal Subsidy Costs. Washington, DC, United Stated of America.

United States Office of Post-Secondary Education (2006): http://www.ed.gov/about/offices/list/ope/hep.html

World Bank (2006): EdStats. http://devdata.worldbank.org/edstats/

_____ (2002): Jamaica Student Loan Project, Loan 4070-JM – Implementation Completion and Results Report. Report No. 24912, Caribbean Countries Country Management Unit, Latin America and the Caribbean Region, The World Bank, Washington, D.C. http://imagebank.worldbank.org/servlet/WDS_IBank_Servlet?pcont=details&menuPK=64154159&searchMenuPK=64154240&theSitePK=501889&eid=000094946_03010404005220&siteName=IMAGEBANK

Journal of Educational Planning and Administration
Volume XXII, No. 2, April 2008, pp. 221-228

RESEARCH ABSTRACT

Community Participation in Primary Education

Title	Community Participation in the Universalisation of Primary Education: A Sociological Study of Balasore and Keonjher Districts in Orissa
Research Scholar	Pabitra Mohan Nayak*
Supervisor	Dr. S. Srinivasa Rao
Department/University	Zakir Husain Centre for Educational Studies (ZHCES), Jawaharlal Nehru University, New Delhi
Degree Awarded	Ph. D.
Date of Award of the Degree	2008
Availability of Thesis	Jawaharlal Nehru University Library and Department Library of ZHCES
Number of Pages	280

The study was an attempt to develop an understanding of the role communities play in the universalisation of primary education in the realm of policies as well as in the actual practice. The study presented the social context of schooling in terms of the location of the school and its access to different caste/tribe groups of the village. It also examined whether the location of the school in each of the village had any impact on the way children from different communities attended the school and whether it also affected the participation of the members of all social groups in the School Management Committee (SMC). The study also presented the socio-economic background of the parents of the school-going children and the SMC members in order to understand the social context in which the community participation was sought to be studied. The term 'community' is used in the study to refer to the village community in general and to the School Management Committee in particular. In the study, the term 'Primary Education' is referred to the classes I to V.

* Presently Project Associate Fellow, CREATE Project, National University of Educational Planning and Administration, New Delhi-110016. E-mail: npabitra@gmail.com

The state of Orissa has been taken for the field investigation. Further, Balasore was selected as it is one of the high literacy districts in the coastal region and Keonjher was selected as it is one of the low literacy districts in the non-coastal region of Orissa. Within the district, blocks were selected on the basis of literacy rates, namely, high and low literacy blocks. The sample of parents and the SMC functionaries were selected depending on the availability of the respondents at the time of the field work done by the researcher. The respondents were drawn from the villages selected for the study on the basis of purposive sampling and a total of 160 parents of the school-going children and 64 School Management Committee members were interviewed. Thus, both the probability and the non-probability sampling procedures were applied to select the districts, blocks, villages and the respondents to be included in the study.

The study adopted both quantitative and qualitative research techniques emphasizing more on the description, analysis and interpretation of the relationship between various variables. The data for the study were obtained from primary as well as secondary sources. The primary data sources consisted of government reports, the interviews with the parents of the school-going children and the SMC functionaries, other village community members, concerned officials of the education department and elected representatives of the village. However, interview schedules were used as the main instruments of data collection from the selected sample. Besides interviews with the parents and SMC members, informal discussions were also held with the other community members for cross-validation and substantiation. This was supplemented by observations regarding the attitudes, and belief systems of the community members towards primary education.

The social mapping of the villages presented a unique residential demarcation and segregation in terms of various caste groups, namely, peasant (intermediary) upper castes, other backward castes (intermediary, middle level artisan and service castes), scheduled castes, and scheduled tribes. Different castes within each of these broader social categories live together within their clan as a ghetto, making the principle of cohabitation applicable in a very limited manner in the case of the eight villages undertaken for the study. The members of a particular clan live together, maintaining some distance from the members of other clans of the same caste group. It is found that the basis of such segregation is the distinct ritual status of each of the caste and the clan groups.

The physical location of the school was found to be within the dominant caste habitations in most of the villages which seem to have an effect on the access of schooling to certain disadvantaged groups in those villages. This is reflected in the distribution of literacy rates among different caste/tribe groups of the village. The study describes the socio-economic background of the parents of the school-going children and the SMC members in order to understand the social context in which the community participation is sought to be studied. It was also intended to see whether there are any variations in the socio-economic background of the SMC members/functionaries and those who elect them, namely, the parents of the school-going children. The educational status of the parents and the SMC functionaries revealed that the educational status of the

SMC functionaries is slightly better than the parents of the school-going children. The summated index of Socio-Economic Status (SES) based on the educational status, occupational status and monthly family income of the parents and the SMC members revealed some significant findings. The data revealed that the social deprivation in terms of social class lies in the rural social hierarchy. While general and OBC groups are largely from the medium and high SES, SCs and STs are from the low and medium SES.

So far as the conduct of the SMC meeting is concerned, some parents have mentioned that the SMC meetings are held once in a year and some others have stated that the meetings do not take place at all. Further, there are differences between the expected roles and the actual goals practised by the SMCs currently. For parents, making the school function effectively is utmost important and it supersedes all other functions of the SMC. Interestingly, various strategies for increasing the enrolment and reducing the drop-out in the school are undertaken by the SMCs. In some of the villages, SMC functionaries have visited the houses of the children of five years and above to bring them to the school at regular intervals, once or twice in a year. Some of the SMC members mentioned that the quality of education provided in their schools is much to be desired. In order to attract more children to the school, they have tried to provide quality food in the school as part of the Mid-Day Meal Scheme. The kind of items that were given priority in the meeting was dependent on the physical context in which the school was located. Various problems are perceived as impediments to the effective functioning of the SMCs such as inadequacy of teachers, poor socio-economic condition of the community members, lack of sufficient financial aid, lack of co-ordination among the members, inadequacy of classrooms, lack of incentives for the SMC members, political interferences and reservation of SMC seats in the village community.

The study examined the group dynamics in operationalising the community participation in terms of caste, class and gender and how they affect the goals of democratic functioning within the SMC. Caste is perceived to be an important factor in the working of the SMC. For instance, the caste background of the chairperson is perceived to be important for the effective functioning of the SMC. The members of the higher castes stressed that they were better in governing the SMC compared to the lower castes. However, the members from the lower castes rejected this line of argument and stressed that commitment and willingness were important and not the caste for the effective functioning of the SMC. The data also substantiated the view that the rich, though they are not members, influence the work of the SMC. However, there were some consensus among the rural community that the school improvement was given utmost priority and not their political agendas. Thus, the caste and class dynamics interplay with the political affiliations in the day-to-day running of a rural school and the SMC of that school.

Further, gender of the chairperson is perceived to be important for the effective functioning of the SMC. The men members argue that they are better in governing the SMC compared to their women counterpart, whereas some of the women members reject this line of argument and stress that commitment and willingness are important and not

the gender for the effective functioning of the SMC. However, the household responsibilities are found to be the most significant impediment for the women chairpersons to perform their task effectively. Thus, the caste, class, gender and political affiliations do affect the functioning of the SMC in multiple ways and directions.

The present study has focused on the processes and practices of community participation and has tried to understand the interplay of caste, class and gender in the community participation for achieving the goals of universal primary education through the School Management Committee. Various aspects of this study have some relevance in facilitating the greater participation of rural communities in the educational planning and management. The study is also important as it attempts to fill in certain gaps within the area of sociology of education in India.

Journal of Educational Planning and Administration
Volume XXII, No. 2, April 2008, pp 225-228

RESEARCH ABSTRACT

Manipur University and its Functioning

Title	Functioning of a State University in Terms of its Statutory Provisions – The Manipur University
Research Scholar	Sangeeta Angom*
Supervisor	Prof. P.P. Gokulanathan
Department/University	Department of Education, North Eastern Hill University, Shillong
Degree Awarded:	Ph. D.
Date of Award of the Degree	July, 2004
Total Pages of the Thesis	382
Availability of Thesis	North Eastern Hill University Library

Universities in India are either centrally sponsored or state supported. Depending on the supports received for university education from the governments, the quality and stature of the individual institutions vary. There is need to conduct a thorough study regarding the overall health of higher education with special emphasis on the financial administration, academic organization and general administration for the improvement of the quality of functioning of a university. The present research was undertaken to examine the emergence and growth of state university, the Manipur University (which was converted into a Central University w.e.f 13/10/2005) and its working since its inception in the background of statutory provisions guiding its functioning. The study also identifies its strengths, weaknesses, achievements and the problems faced by it. Since one cannot blindly apply any solution or suggestions made by the other researchers elsewhere in the case of Manipur University, this study was undertaken to come out with valuable suggestions for raising the quality of working of the University.

Objectives

* Presently, Faculty member, Department of Higher and Professional Education, National University of Educational Planning and Administration , New Delhi-110016.

The specific objectives of the Study were:

1. To analyse the provisions of Manipur University Act, the Statutes, Ordinances, Regulations and Rules that have been made from time to time to manage the various functions of the University.
2. To examine the quality of working of various academic and administrative departments of the University in relation to the provisions of the Act.
3. To study in detail the nature of violation of the provisions of the Act, if any, leading to cases of litigation involving the University from time to time.
4. To identify the important issues and problems faced by the Manipur University and make suggestions to overcome them.

The coverage of the research study included a detailed analysis of the provisions of the MU Act, quality of functioning of the different units of the University, like Schools of Study, Academic Departments, Centres of Study, administrative system including finance, examination system and other support services which directly or indirectly lend support to the University in carrying out its functions. The present research does not include analysis of the working of colleges affiliated to the University.

Data and Methodology

The overall method of research was descriptive survey bordering a case study. It depended heavily on documentary sources supplemented by oral and written responses of different functionaries of the Manipur University and the Manipur State Government. The thrust of investigation was analysis of the functional aspects of the University System, namely the policies and procedures, pattern of organisation of academic work with emphasis on achievements, financial administration, management of examination system and research programmes, and extension activities undertaken. Since the research undertaken involved a composite study about a University, covering its entire working system, it had to be exhaustive in scope. The universe of the study included the entire population of Heads of Administrative Departments, Heads of Academic Departments, Heads of Centres of Study, Deans of Schools, Dean of Students' Welfare, Heads of the Support Services, students, State Officials, representatives of various employee organisations functioning in the University and representatives of NGO's functioning in the state.

The data were collected from both primary and secondary sources. The primary sources included documents and reports of the University, reports of the Economic and Statistics Department of Manipur State, and responses of various categories of respondents included in the study. The secondary sources consisted mainly of published books, articles, research papers and reports of seminars and conferences on the subject of higher education. The investigator's diary which maintained records of discussion sessions held with officials and persons connected with the system of university education in the Manipur State was also used at appropriate places as a source of information. For the study, separate questionnaires containing both the open-end and close-end questions were prepared and used to obtain information pertinent to the

research from various categories of respondents. Besides, an Interview Schedule was also used to obtain specific information from certain categories of respondents. Both qualitative and quantitative methods of analyses were used.

Findings and their Implications

The establishment of D.M College in 1946 marked the beginning of higher education in the state. The increasing demand for higher education in the state encouraged the setting up of private colleges in different parts of the state in subsequent years. In the year 1980, the number of colleges affiliated to the Manipur University was 27 and it rose to 70 in the year 2003. The Manipur University itself was established in 1980 under the provisions of MU Act 1980, which was amended in 1982 to its present form. The Jawaharlal Nehru University Center of Post- Graduate, Imphal, which was set up in 1971, got merged with the MU on April 1, 1981. The main authorities of the University are the Senate, Syndicate, Academic Council, Finance Committee, Planning Board, and School of Studies, as given by the MU Act, including other committees. The main functionaries are the Chancellor, Vice-Chancellor, Rector (not in place now), Deans of School of Studies, Registrar, Finance Officer and other officers.

The general administration is divided into sections, like Administration, Faculty, UGC, Special Cell for the Welfare of SC and ST, Public Relations Office, Computer Centre, Engineering, and Estate and Library, working under a respective head of the section. The Finance Department is working under the control of the Finance Committee and the Finance Officer. In the financial matters, the Registrar and Finance Officer have to seek approval from the Vice-Chancellor in most of the cases. The Examiner of Local Fund Accounts, Manipur, or any person authorised by him in this behalf, will audit the accounts of the University at least once a year. The MU follows the UGC guidelines for preparation of financial estimates of the University. Financial estimates of the University are made up of five parts, namely Maintenance (Non-Plan), Development (Plan), Earmarked (Special) Funds, Deposit Fund Account and Manipur Institute of Management Studies (MIMS) Funds. The main sources of income under Non-Plan Funds are divided into grants and donations, fees and income from other sources. Income from fees and other sources show an increasing trend whereas income from donations and grants shows a decreasing trend. The major portion of revenue of MU is from state government grants, which have shown wide fluctuations over the years.

Growth and pattern of expenditure analysis shows that the expenditure under the salary and salary component on academic departments is the highest. Next come the administrative departments. The expenditure on other charges also shows an increasing trend. Comparison of expenditure on academic departments and non-academic/sections under non-plan grants shows that expenditure on teaching departments as a proportion of total expenditure is less than the expenditure on non-teaching departments. Manipur Institute of Management Studies (MIMS) has different accounts and maintained separately, and reported accordingly in the financial documents of the University.

Examination Section, headed by the Controller of Examination and supported by other officials and staffs, conducts all the examinations of the University for the award of various degrees/diplomas at all levels. The Controller works under the overall supervision of Examination Standing Committee and the Vice-Chancellor.

The bodies involved in academic matters are Academic Council, Syndicate, and Boards of Studies, Committees of Advanced Study and Research. The overall academic supervision is carried by the Vice-Chancellor who performs this function with the help of the Deans of Schools, Heads of the Departments and Centres, and Principals of affiliated colleges. There are 22 Departments under three Schools of Studies, like Humanities, Science and Social Science, 6 Centers of Study and the total number of colleges is 70 as on 2003. There is Department to Department and School to School variation in the number of faculty members and levels of faculty positions and also variation in relation to enrolment and performance of students and staff, including research activities.

A sample of instances of litigation (the cases) brought against the University is discussed according to their affinity to administrative (service) matter, academic (examination) matter, academic (admission) matter, and autonomy of the University. In these cases, the provisions made in the Act with regard to the powers of the Syndicate, the Vice-Chancellor, the Registrar and other officials of the University have been put to test. In most of the cases, the points of view of the University have been accepted by the Honorable Judges of the High Court. It shows that the provisions of the Act give adequate powers to the officials and the authorities to manage the affairs of the University smoothly. What is thus clear is that the University has come of age and that the provisions of the University Act, the Ordinances, Rules and Regulations, are adequate to run its affairs smoothly if these are strictly followed in practice.

Levels of quality attained by different departments vary and it is difficult to grade the University as excellent, good, mediocre, or poor. The overall rating in terms of quality of work of the University may be 'average' with some departments showing performance of superior quality.

Lastly, it can be said that with the establishment of Manipur University, the growth of colleges and higher education in the state has got a real boost in terms of number of institutions as well as enrolments. The manpower needs of the state in the education sector are greatly met with students passing out of the MU. Programmes of research of regional and local interest have been increasingly taken up with financial support from national and regional level funding agencies. The findings of such researches must go a long way in linking higher education to socio-economic development of the state. Schemes of education currently being initiated and continued in future by the University must go a long way in realizing the objectives set out in the University Act.

Journal of Educational Planning and Administration
Volume XXII, No. 2, April 2008, pp. 229-248

BOOK REVIEWS

Girish, N. PANDE (2001): ***Holistic Education.*** Ankita Prakashan, Lucknow, (Paperback) Pages 92; Price Rs. 70/-

Working as a senior government employee in the Department of Income Tax and gifted with numerous talents, like that of being a poet and story teller, the author under review has developed a philosophy of striking a balance among Arth, Kama, Dharma and Moksha. These basic drives, if not kept under control, could create problems for the humans. The mantra of keeping them under control and creating a balance among them brings peace and harmony all around. His philosophy stands extended into the field of education. He believes, 'Proper Education' is the greatest leveler. There has been a misconception that equality in society or socialism can be brought about by transfer of capital or some such means. This could only be done through 'Proper Education'. The economic conditions of any two persons similarly trained and of equal intellectual and moral level would be near about the same. A lot of disputes would arise in distribution of capital, which could engulf the entire system and make it ineffective. But there can be no such problem with the distribution of knowledge. This is because the person distributing knowledge becomes richer in knowledge. He loses nothing. His entire knowledge remains with him in a more refined and sharper shape. People might not mind sharing their knowledge. Therefore, the Ganga of total and holistic social transformation will emanate not from transference of capital, but from 'Proper Education'.

What is Holistic or Proper Education? To understand all this, it is necessary to get into the mind of the author. He sincerely believes that the government has only a limited role in providing education for all. All that is needed is to simplify the provision of education and minimizing the role of the government. According to the author, the government should plan education and see that anti-social people do not enter the four walls of schools. Beyond that it has no role. Once the procedures for opening schools are simplified, 'benevolent' teachers will be able to set up excellent schools. The reason why he says so is because, at present only 'maneuvering' managers are able to open schools. A lot of energy is at present consumed in meeting government requirements.

What the author is talking about is the philanthropic motive of the teachers with skills, who wish to share their knowledge with the younger generation. "A student has to be taught that he does not do to others what he does not like to be done to him." His principal objectives to be achieved are: One should be moral and be 'skilled'. The transfer of skills has to be inexpensive. This is possible because the skills are fairly distributed in the society. He holds the view that selfless teachers are available in abundance.

He further holds the view that *takhti ke akshar* was not that primitive system after all. In some ways it was better than the keyboard and the computer screen. It taught not only how to write and read, more importantly it gave a message to use resources properly, responsively and creatively and how to live in peace and harmony.

When this book was written, SSA has not introduced and the success of Rajasthani schemes was also not reported. Similarly, the money that is currently being allocated to education also was no where around. Things have changed and the computers have also become cheap and largely affordable. However, the morality Pande is talking of has totally disappeared from the national horizon. Our rulers have set the standards in this regard. Could we excel the ruling elite? This then is the question and I do not think anyone is in a position to answer. But it is a very readable experiment and the ideas behind are equally lofty. One wishes Pande success.

Pocket A4/206, Kalkaji Extension
New Delhi-110019

R.P. Singh
profrpsi@gmail.com

Suh JOONGHAE & Derek H.C. Chen (eds): ***Korea as a Knowledge Economy: Evolutionary Process and Lessons Learned.*** Korea Development Institute, and the World Bank Institute, The World Bank, Washington, DC 2007, pp. 187. Price: $25. ISBN 9780821372029 (Hardbound).

The present global growth dynamics is based on the race to control the parameters of 'Knowledge Economy'. The phase "Knowledge Economy" was popularized, if not invented, by Peter Drucker in his book the 'Age of Discontinuity'. The knowledge based growth is attained by investing heavily in education and training, boosting innovation through intensive research and development, and developing a modern and accessible information infrastructure, all coupled with a stable economic and conducive institutional regime that enables the knowledge-related investments to flourish. Such focus calls for a change in attitude to the ways in which knowledge is created, acquired, transmitted and used.

The present report *Korea as a knowledge Economy: Evolutionary Process and Lessons Learned* is a follow-up to the joint World Bank-OECD report on *Korea and the Knowledge-Based Economy: Making the Transition (2000)*, which focused on the new development strategies Korea needed to overcome the financial crisis and sustain economic growth in the longer term. It gave extensive recommendations in four key areas - Firstly, *Economic incentives & institutional regimes* (where it recommends for a flexible, adaptive, market based economy and a creative society, compatible with the knowledge-based networked economy); Secondly, *education, training and human resource management* (where it talks more about up-gradation of skills by emphasizing educational quality, creativity and lifelong learning); Thirdly, *information infrastructure*

(where it talks about liberalizing its telecommunication industry and addressing areas of market failure); Finally, *the innovation system* (where it opines to improve coordination among government agencies, encourage interaction between firms and the public sector, reduce R&D support to large firms and increase its basic research effort).

The present report under review is a companion volume to the earlier report. The present report is basically tries to venerate the earlier report and aims to provide certain policy lessons for other developing economies through the Korean experiences in designing and implementing knowledge based development strategies and the resulting rapid and sustained knowledge-led economic growth over the past four decades.

The Republic of Korea started the development process since 1962. In a period of four decades, it has achieved what has become known as the "*Miracle on the Hangang (River)*" - a process that dramatically transformed the Korean economy while making a turning point in the Korean history. Korea has been rapidly integrating itself into the world economy since the onset of the 1997 crisis. The government has advanced a new paradigm that involves up-grading business practices to international standards, promoting human resources and technological development and enhancing institutional efficiency. In fact Korea has staged impressive economic recovery since Asian financial crisis.

Joonghae Suh & Derek Chen, in this report, point out that the basis of such a miracle was the 'Knowledge Economy' approach at an early stage of development. In conformity to the earlier report, the present report too talks about four pillars of Knowledge Economy (conducive macroeconomic framework, a modern information infrastructure, human resource development, and an effective innovation system), and Knowledge Assessment Methodology (KAM), which is a tool developed by the World Bank that assists comparisons across countries in terms of their advancement towards the knowledge economy.

Joonghae Suh in his analysis points out that the development stages of the Korean economy assured a perfect platform for knowledge economy policies. In the 1960s, it targeted for building an export-oriented production base of industrialization; 1970s focused on building self-reliant growth base; 1980s was the period to expand technology intensive industries; in 1990s, it promoted high technology innovation. All these policies gave a perfect base, in the present decade, for making a transition to knowledge based economy.

However, there was a financial crisis in the East Asian countries by the end of the last decade. The key suspected causes of the 1997 financial crisis in Korea are the breakdown in financial system, the erosion of economy's international competitiveness, and weak macroeconomic and institutional environments. These triggered the need for restructuring its evolutionary developmental policies and base the new economy on innovation and knowledge. Korea initiated a three-year action plan for the knowledge based economy from 2000-2003, which had 18 targets in the sectors of Information-Communication-Science & Technology, Innovation, knowledge based industries, education and human resource development and management.

With this base, the authors talk about Korea's growth pattern based on the four pillars of knowledge economy. It used the Knowledge Assessment Methodology (KAM) to base its growth with new economic framework.

The first pillar is all about having a Conducive Macroeconomic Framework. The report points out that the 1997 financial crisis was a blessing in disguise and acted as a catalyst for change. The reform process focused on creating a market friendly environment, ensuring labour reforms by reorganizing social safety net, and providing a level playing field for the private sector.

The second pillar aims to create Modern Information Infrastructure. The report says that the shift towards a knowledge based economy has been driven by ICTs. Korea's ICT industrial policy has focused on three main areas: R&D, human resource development and ensuring the availability of venture capital. In fact, Korea presently has the world's highest number of broadband internet access (24%). It has some major e-government initiatives, like information sharing system in major government services, including resident registration, real estate, and vehicle records; national finance information system for budget planning and allocation, accounting, and settlement of accounts and made financial information available through an interagency network; Local Government Information Network System; e-approvals and e-documents between agencies; Home Tax Service system that enables online filing of tax returns, electronic bill payment, tax consultations, and issuance service for tax-related certificate, and many more such initiatives. Korea's IT 839 Policy shows the future of ICT in Korea. Telecommunications services, infrastructure, equipment, software, and content are the elements that make up the vertical and horizontal value chains of the IT industry. The government adjusts the IT 839 strategy to reflect changes in technology and market environments.

The third pillar of Knowledge Economy is to focus on Human Resource Development. Korea, earlier, focused greatly on access to education during industrialization period. In fact, the rate of pupil retention in Korea is nearly 100 percent in the lower grades of education system, may be because education has an intrinsic social value in the Korean culture. This cultural factor has contributed significantly to the high propensity for private spending in education. After the provision of universal primary education, secondary and tertiary enrolments were expanded in accordance with the human resource needs at the various stages of economic development. Korea relied on private sector heavily for growth in secondary and tertiary education. In fact, 85 % of colleges and universities and 75 % enrolment in the colleges and universities are in the private sector. Korea strongly believed that inducing the private sector to play a more active role in providing educational services at the secondary and higher education levels would offer a leverage effect, allowing limited government resources to be spent on prioritized areas.

Korea successfully addressed the equity issue (of providing the basic education to all) by leaving higher levels of education to the private sector and targeting public resources for primary education. Korea's KBE approach encouraged tertiary institutions to be more entrepreneurial and responsive to industrial needs by granting a greater level of autonomy

in both academic and administrative affairs with regard to students and staff. For this matter, Korea encouraged industry academia collaborations. Some key lessons, the author's point out, from the Korean experience in developing skills and human resources for the KBE are - education and training are critical; education and training need to be relevant to the particular needs of industries and various sectors of the economy; and education and training need to develop over time to keep pace with the changing needs of the economy. The role of the government has changed, from that of regulator to that of a facilitator, and competition between educational institutions is being enforced to make education and training systems more cost-effective and productive.

The fourth, and a very important, pillar for the Knowledge Economy is harnessing the potential of Science and Technology through an effective Innovation System. In the early years of industrialization, Korea relied on reverse engineering, original equipment manufacturing (OEM), and foreign licensing as means of tapping and assimilating foreign technologies. However, what was needed was to build technologies by using its capabilities. Korea then created Government Research Institutions (GRIs) to work with private industries to develop the necessary technological foundation for industrialization. This brought a positive change and necessitated the development of indigenous capability for research and innovation.

Korea has been able to increase R&D investments to greater heights (the top 20 firms receive about 57 percent of the total industrial R&D investments in Korea) mainly because it has an abundant, highly educated labour force that could meet the increasing demand for R&D services in both the private and public sectors. Presently, GRIs R&D activities, though widely debated, are geared more towards the development of future-oriented technologies and technologies in the public domain. In a nutshell, some of the key determinants of Korea's Science and Technology and innovation capability are - an outward-looking development strategy, an industry-targeting development policy, a large-firm-oriented industrial policy, human resource development, and government-led science and technology infrastructure building. However, there is lot of scope of improvement & investment in strengthening basic scientific research capability and improve framework conditions for innovation.

In the final chapter on *'Assessment and Lessons'*, the authors point out that education builds a nation's ability to absorb new knowledge and technology because it gives rise to individual's basic competence, which is an essential building block in technological learning. The authors also consider the strong Confucian tradition, which places high value on education, as an important part of Korea's transformation to the knowledge economy. To sum up, the authors point out that in the four decades of change, it has been easier to invest in hard infrastructure than to change mentalities, traditions, and institutional behaviours, rooted in culture and history.

The authors could have done a perfect job by making the study comparative, especially when it aims to provide inputs to the policy makers from developing countries that are in the midst of, or are intending to, embark on the transition towards the knowledge economy. It is basically a case study of Korea, which showcases the

pragmatic policies from its forty-five years of knowledge-based growth. Moreover, it is also felt that knowledge economy is taken to mean only high technologies industries or information and communication technologies. It would be more appropriate to use the concept more broadly to cover how any economy harnesses and uses new and existing knowledge to improve the productivity of agriculture, industry, and services and increases overall welfare.

India has many of the key ingredients for making a transition to the knowledge economy. It has critical mass of skilled knowledge workers, a well functioning democracy, one of the world's largest domestic market, large diaspora creating valuable knowledge links and networks, macroeconomic stability, a dynamic private sector and many more such advantages. Building on these strengths, India can harness the benefits of knowledge revolution to improve its economic performance and boost the welfare of its people. Since India is in the midst of transition towards the knowledge economy, it is worth taking crucial inputs from the Korean experience.

Zakir Husain Centre for Educational Studies,
School of Social Sciences, JNU, New Delhi - 110067

Sridhar Bhagavatula
sridharbhagavatula@gmail.com

T.K. OOMMEN (2007): ***Knowledge and Society – Situating Sociology and Social Anthropology.*** Oxford University Press, New Delhi. Pages: 195; Price: Rs 495; ISBN: 019568775-2. (Hardbound).

The book *Knowledge and Society: Situating Sociology and Social Anthropology* is a collection of essays written by T.K. Oommen, an eminent sociologist in India. The various chapters in this volume, taken as a whole, address three central sources of tension namely, (i) the vague boundary between the two *cognate* disciplines, i.e. sociology and social anthropology; (ii) the gratuitous anxiety that cultural or social sciences exhibit to catch up with the 'scientificity' of material and life sciences; and (iii) the lack of clarity that sociology is prone to have regarding the appropriate units of analysis in different *contexts* and levels.

In social sciences, facts constitute, what the author calls, the *constructed* meanings, which can only be deciphered with the help of those people who construct them. Hence, the relevance of a particular technique of data collection is dependent upon the type of data sought to be collected. By focusing on the discrepancies in the methods of sociology and social anthropology, T.K. Oommen attempts to approach the social sciences' *knowledge processes*, namely the production, consumption and distribution in a critical way. For this end, the author with his years of professional involvement in sociology, also raises numerous methodological issues in the Weberian tradition of *value-neutrality.*

In his *particularizing objectivity analysis* in sociology, Oommen considers *contextualization* as the kernel of research enquiry. His perspective *from below* and

contextualization focus on the implications of the nature of social structure and the location of the researcher in the process of knowledge *construction*. Beside this, Oommen suggests several other methodological issues. For a rigorous research, his emphasis is inimitable in a sense he is taking care of a range of empirical issues across all levels, namely, the micro, meso and macro.

The book in its first part discusses the problems in adapting western research concepts, theories and techniques to the Indian situation by contextualization to meet the precise challenges in capturing the social reality. The second part deals with the different *avatars* of sociology and social anthropology during colonialism, cold war, and the current global age. The implications of 'internationalization of sociology' and 'sociology for one world' are also examined. The shifting frontiers of the two disciplines between old worlds of Europe, Asia, and Africa, and the new world of Americas and Australia, are identified and their implications analysed.

Oommen's *perspective from below* in this context focuses on the implications of the nature of social structure and the location of the researcher in the process of knowledge production. For him, when the two cognate disciplines of sociology and social anthropology emerged to meet the needs and aspirations of Europe, the former investigated European societies and the latter studied those Europe colonized. What changes occurred to these western transplants outside Europe, particularly in India, is a principal concern of this volume. Besides, the book distinctively highlights the importance of contextualization in the production and dissemination of knowledge.

With this collection of essays, Oommen also discusses the controversy regarding data collection techniques among sociologists and social anthropologists. The author, furthermore, addresses other conceptual and methodological issues with a critical expertise by demonstrating how sociology is done in India in a 'sociological' way as against the social anthropological style of doing sociology, which was the dominant pattern in India until recently.

In his overall analysis, Oommen's discussion on the specificities of the South Asian situation prompts two conclusions. First, the distinction between social anthropology as a discipline that studies other cultures and sociology as a discipline, which studies one's own society, is ambiguous. Hence, the distinction is largely irrelevant. Second, participant observation, the unique selling point of social anthropology, cannot be pressed into service because of two of its distinct features: *plurality* and *hierarchy*. This largely explains the near total absence of the studies of religious minorities and ex-untouchables by caste Hindu social anthropologists through participant observation. These conclusions have serious implications for determining the units of analysis (p.14).

Although it is not completely possible to begin research with an 'open mind', Oommen recommends that one should constantly keep open one's partly-filled mind to provide scope for creative confrontations between concepts, theories, and data. The captive mind for him is not simply a product of *western academic colonialism* but also of the inability to transcend 'trained incapacity' and inappropriate indigenous work habit. Moreover, Oommen mainly argues that there is an organic relationship between the

nature of the themes studied and the methods invoked; the nature and characteristics of the universe studied and the methods employed; and that no method is inherently superior or inferior, but is contextually relevant or irrelevant. These suggestions can also be understood in situating the intricate relationship between the subject matter of a field of enquiry and its implications for methodology.

Since knowledge without critical enquiry is futile, it also becomes a liability if a research technique is employed in a wrong context. Therefore, the relevance of a particular technique rests on its own context. Though by his vigilant scholastic stand and value-neutrality Oommen impresses the readers, he fails only where he emphasises too much on the identity formation of the cognate disciplines. However, his superior emphases on these identity issues are no longer needed in a *transdisciplinary* era, his precautious value-neutral positions are impressive.

Nevertheless, it is exceptionally interesting to read and appreciate Oommen's cynical position against the western influences in Indian academic tradition, as he himself was a former President of *International* Sociological Association. Yet, this book, as an experience-sharing volume, resembles that of M. N. Srinivas's *The Filed Worker and The Field*, and will be of an immense use for the social science researchers to understand the intricate academic inquiries.

Research Scholar
NUEPA, New Delhi-16

Lakshmi Narayanan
narayanan.nuepa@gmail.com

Mark HANSON (2008): ***Economic Development, Education and Transnational Corporations.*** Routledge Publication (New York). Pp. 157; Price: £70. ISBN 978-0-415-77116-0. (Hardbound).

In the neo-classical growth theory, particularly in Solow model, it was found that the growth rate differs among nations; even if they are using the same level of labour and capital in their production process and the third factor responsible for this was named as Total Factor Productivity (TFP) or Solow residual. Later in the endogenous growth theory, the real picture had come out, i.e. the knowledge or technology makes a difference for the uneven growth and that this knowledge can be created through education and schooling. Afterwards this factor was added as an important input in the estimation of production function. At the same time, the message like 'a nation having less amount of physical capital can grow equally or more by strengthening its knowledge base in comparison to a nation having abundant physical capital,' emerged from the literature of economics of education.

The present book of Mark Hanson establishes the exact fact by taking instances of two nations namely, the United States of Mexico (to be referred to as Mexico) and the Republic of Korea (to be referred to as South Korea). In particular, it identifies, describes and explains the role knowledge, transformed from transnational companies (TNCs) to

national institutions in Mexico and South Korea, has (has not) played in moving those nations up their respective national learning and development curves.

To provide a rationale for analytical comparison between these two countries, the author has mentioned that these two countries are poor and disarrayed nations; that they began their respective struggles towards national development at the same time in the 1960s when both were inflicted with the same economic, social and educational malignancies of underdevelopment but how their development paths differed consequently.

The first chapter of the book *"Knowledge Transfer and National Development"* sets the stage by explaining that globalization is, in part, a response to an unequal distribution of the world's wealth. South Korea and Mexico are discussed as case illustrations of how two equally underdeveloped nations, starting in the 1960s, could have such different development results by the turn of the century. The argument is made that when higher-tech TNCs are offshored to LDCs, they can knowingly or unknowingly function like educational systems transferring critical knowledge to host national institutions. Towards the last part of the chapter, the author has provided some general theories and issues of knowledge transfer which are applicable for almost all LDCs.

Chapter 2, *"Stages of National Development"*, makes use of a Japanese development metaphor referred to as the "Flaying Geese Formation." In this, four progressive stages are identified that an LDC ideally goes through as it moves up the development path. These are: (1) building the foundation, (2) lift off, (3) acceleration, and (4) upward spiral. The discussion of these four stages highlights that there exists a chronology among these steps, similar to the Rostow's five stages of development (the traditional society, precondition for takeoff, the takeoff, the drive to maturity and the age of high mass consumption). In the very first stage of the "Flaying Geese Formation", the LDC develops its infrastructure, in the second stage the country facilitates the arrival of assembly platforms (plants) that provide growth (getting more) in labour intensive technology, whereas the third stage targets development (upgrading quality) with knowledge intensive technology. In the last stage, a nation has already acquired the knowledge, skills, experiences and economic base to pursue its own course. In practice, no single country has gone up the development path as precisely outlined in the four stages of the "Flaying Geese Formation". However, all aspects of the four developed stages have been successfully traversed by one or more countries.

Finally, the chapter explains how and why South Korea moved progressively up the manufacturing learning curve from simple assembly of foreign products in the 1960s to product imitation in the 1970s, and eventually the world-class innovative design and development of its own products for international markets by the turn of the century. In contrast, the chapter explains, why Mexico during the past four decades has not advanced up the manufacturing learning curve much beyond the assembly of products owned by the TNCs.

The divergent development strategies and degrees of success therein that Mexico and South Korea have pursued since 1960s have been explained in the chapter titled

"National Strategies of Knowledge Acquisition". Further, it focuses on the role of the respective governments of the two nations in the development process. It is observed that, in South Korea, the government assumed a strong guiding role by introducing packages of incentives to attract targeted TNC industries and then pursued the manufacturing knowledge by every available means like joint ventures, licensing, collaborative research, reverse engineering etc. In contrast, over the past 40 years, Mexico has operated with neither a strategic vision nor policies, plans or mechanisms to capture for its own use TNCs manufacturing knowledge present on its own soil. Korea as a nation had moved from conditions of severe poverty and dependence on industrial knowledge from foreign TNCs to the status of a Newly Industrialized Nation (NIN), pushing the innovation evelope and rewarding its citizens with one of the strongest economies in the third world through the strong leadership of Park Chung, who seized power in 1961. Further, the educational component of the nation proved to be aggressive in providing the nation with an educated workforce required for the sophisticated industrialization needs of the nation. In a similar fashion, Mexico also followed fundamentally quasi-laissez-faire principle for its national development. Firstly, it tried to solve the problem of unemployment by making strong industrial base and finally succeeded. Further, it strengthened its knowledge base through 'knowledge transfer' from TNCs which helped to make its development sustainable. Presently it is rich with the huge inflow of Foreign Direct Investment (FDI) and location of TNC plants on its soil.

The core chapter of the book *"Educational Reform and National Development"* brings a strong positive correlation between the education level and the national development in general and particular to the two discussed nations of South Korea and Mexico. The chapter contracts the amounts and types of educational investments made by the two countries and the resulting impact on, for example, the rich and poor, research and development programmes, curriculum changes, higher education linkages with TNC industries, training for specialized vocational/technical skills and the preparation of professional managers.

It examines how South Korea systematically and assertively adapted its educational system to meet the demands of a growing and increasingly technologically sophisticated world economy and with the goal of preparing a literate workforce for an industrializing society. The Korean government's goal of becoming a knowledge-based society that could compete in the international market place required dramatic quantitative and qualitative advances in the educational system at elementary, secondary and tertiary levels. And by the turn of the century, the pre-university educational system in Korea was rated as on of the finest in the world (along with Japan and Singapore). In contrast, Mexico was still graduating less than half of its secondary school-age students. It is because the absolute amount of investment on education sector is very low for low tax rates and institutions avoid paying taxes. However, Mexico invests a high percentage of its government expenditure (nearly one-fourth), even higher than South Korea. In addition to the limited government funding to education, the priority was given to the tertiary education, which results in a low school enrolment in Mexico. Further, in

Mexico, the gap in school enrolment rate between rich and poor families is almost the greatest in Latin America. The point here is that, rapid national development would require the skills and talent from all levels of society, not just the upper classes. But, Mexico's education system favors the upper economic classes and does not produce the talent and skills of a work force from lower economic strata that can drive national industrialization process. The important lesson from this chapter is that, a nation should build its educational system as per its national goal and it should be accessable to all people from different economic strata.

The last chapter of the book *"Conclusions, Analysis and Lessons Learned"* briefly summarizes a few of the key points that compare the development paths taken by Mexico and South Korea. More importantly, within the context of a theoretical framework, the author identifies and discusses the essential components and interactions necessary to support processes of rapid development. Further, the present chapter acknowledges that there are many rich and well established theories of national development that focus on explanations, stressing economic, political, educational, religious or even climatic variables.

By the 1990s, through solid and continuous investments in its educational institutions, from public and private sources, Korea had acquired one of the most qualitatively productive educational system in the world. The development story of South Korea is a story of dramatic success, whereas Mexico's story during the same period is made up of good news and not so good news. The good news like, it has moved sufficiently up the learning curve to maintain manufacturing platforms for over 3,000 foreign and domestic plans and employing in excess of one million workers. The not-so-good news for Mexico is that even though funding education is its highest budget priority, the country still graduates less than half of its students from secondary schools. Tertiary education is generally well funded in Mexico, but it comes at the expense of under-funding primary and secondary school education. Also its educational budget serves as a hidden educational subsidy for the upper classes as the lower socio-economic classes cannot reach the level of university study. But successful industrialization requires an educated populace at all levels of society, not just at the top.

South Korea and Mexico pursued very different paths in their desire to industrialize. South Korea pursued growth (more of something) and development (the betterment of something), where as Mexico concentrated on growth alone.

Finally, the author has used an old story to justify why these two countries developed so differently, i.e., "Give some fish, and he eats for a day. Teach someone to fish, and he eats for a life time." On the same line, since the 1960s, if the foreign offshored industries were the potential teachers, South Korea took the lessons and Mexico took the fish.

No doubt this book is an important contribution to the literature as present global development paradigm. The lessons learnt from Korea and Mexico are not only applicable to these two nations but also to all the LDCs of the world.

Research Scholar
NUEPA, New Delhi

Pradeep Kumar
Email: pradeepnuepa@gmail.com

Journal of Educational Planning and Administration
Volume XXII, No. 2, April 2008

Peter D. HERSHOCK, Mark MASON and John N. HAWKINS (eds.) (2007): ***Changing Education: Leadership, Innovation and Development in a Globalising Asia Pacific.*** Comparative Education Research Centre, University of Hong Kong: Springer, ISBN 978-962-8093-54-0 (Paperback). Price: US$ 32.

This edited volume is a timely addition to a critical theme and its focus on the Asia Pacific region is also pertinent since it is undergoing radical changes due to the globalisation of the economy and related developments in the field of education. This is also the time when educational leaders, policymakers and practitioners, are being called upon to meet the challenges of the societies in flux and educational systems are found to be inadequate to meet them. Whether or not education, specially higher education, is a public good is under debate, as for example, in India. In addition, there is a large-scale disillusionment with the existing public education systems. There is also an awareness of the plurality of perspectives and interests within and across the region and also within the countries. Therefore, the editors assume that it is not feasible to talk of a "society-wide shared sense of the good" and state that there is need to put simultaneous emphasis on the universal and the unique, on the one hand, and on diversity and multiculturalism, on the other.

The major concern of the book is to trace the historical origins and context of what the authors call a paradigm which is "centred on development-enabling, curriculum-based formal education – and to shed some useful light on why it remains as widely and deeply entrenched as it is. We do so in full awareness that a paradigm of education is not an empirical entity... there are all educational systems to which one can point as instantiations of the dominant paradigm... that indicates a history of convergences explaining why education has come to mean such similar things to so many very different people in so many quite distinct settings." (p. 138). The focus is not on how to improve the existing systems but on how to change them altogether by changing this dominant paradigm. This is supposedly the main thrust of the book.

The book has a long introduction and the concluding chapter written by the three editors. In addition there are 12 chapters divided into three sections. Each section addresses a different question. For example, the first section focuses on the context and imperatives for paradigmatic change in education while considering the question: what are the consequences of globalisation on education? Chapter one by Neubauer goes over the familiar terrain of what education is expected to do, its contradictory role and concludes "that new educational paradigms... will radically challenge our notions of how knowledge is created, transmitted and conserved". However, it does not suggest any alternative paradigm. The next chapter by Rizvi critiques the educational aims in the context of contemporary curricular discourse. He argues that educational aims are always embedded within a broader context of social relations and practices. In chapter four Hershock discusses the twin developments, namely, increasing poverty and inequity both within and among societies on the one hand, and the huge demand for education as a driver of global interdependence and poverty alleviation, on the other. He argues that the

alleviation of poverty and reduction of inequity is possible only if the paradigm of curriculum based and competence biased education is given up altogether. He criticises the approaches, which link poverty alleviation and education, for not providing sufficient explanations of why the new pattern of global interdependence has heightened global inequity and created conditions for educational crisis. He is critical of the old model as well as of the market driven model of education and contends that the new system of education must incorporate diversity and focus on commitment, coordination and contributory virtuosity. How?

The second section provides empirical case studies, such as of China and of Singapore. In Chapter 5, Hawkins examines and analyses the dominant educational paradigm. He emphasises that along with the meta-perspective on educational access and quality there is need to integrate the local, national, regional and global perspectives. In addition, one should not lose sight of the historical, social, political, economic, technological, cultural and educational processes. But in the end, we are no wiser about it.

The case studies are intended to demonstrate whether some countries and alternative providers of education are challenging or not challenging the existing educational paradigm. The chapter on China is a good example of how the educational system is reformed to meet the economic and political needs of a country. The main emphasis has been on expansion, diversification, consolidation of smaller and specialised institutions into general universities, decentralisation of administration and international collaboration. While restructuring the system of higher education, China is following the model of American research universities. According to the author, the changes in the higher education system are still a part of the globally dominant paradigm. A shift to a new paradigm will require that the issues relating to moral and social values, educational, social and gender inequities, cultural diversity, and environmental protection are also addressed. But the question remains: Does China offer a new paradigm?

The chapter on Singapore by Tan refers to a multicultural society where the educational system faces the challenge of producing internationally competent students along with integrating values and dispositions, specifically Singaporean, revolving around a discussion of the national educational policy and its implementation in schools in 1997. Certain common values were sought to be fostered through all subjects, that is, through the formal curriculum, informal curriculum and activities. According to the author, the concern with social cohesion and national identity is longstanding in Singapore. What has changed is the social context, namely, the income disparities in an increasingly consumerist society which have been heightened by economic globalisation. There is also an ethnic divide and heightened sense of religious differences which overlap with economic and political divisions. After ten years of National Education Policy, it has been acknowledged that it has not been very successful in promoting cross-racial cohesion and the commitment of students to Singapore's future.

The third section highlights the challenges to leadership in trying to change education and synthesizes the conceptual points of discussion presented in part one and the

empirical realities and practices of part two while discussing the role of leadership in education. Ordonez in chapter 10 highlights the paradox of globalisation because of the twin developments, namely, the use of common language and technology for communication, on the one hand, and bringing together heterogeneous groups and peoples which represent diversity rather than uniformity. This is where lies the challenge of leadership which is to constantly search for new ways and paradigms to meet the ever-changing learning needs of students.

In chapter 12, Dalmiya argues that feminist analysis of education and its leadership assumes a commitment to rethinking the aims of education but also of educational policy. According to her the nature and content of education or the curriculum is to necessarily question the power relations as depicted in them. She substantiates her argument by discussing the works of two feminist scholars and in the process tries to deconstruct the established concept of leadership. However, her argument is obfuscated by difficult prose which makes the text and the meaning opaque. Nor are the links between Noddings, Mohanty and Mahabharata very clear. Moreover, the story of sage Kaushika from the Mahabharata is narrated to construct the feminist virtue of 'relational humility'. It is not clear how and why the virtue of relational humility is feminist? According to her, inculcating relational humility should be a goal of education. In the model suggested by her, the leader should be ready to be led by the ideas of others. Leaders ready to be led is not a new idea. On the whole, the argument is tediously crafted in style.

Chapter 9 by Hershock is too theoretical and general and does not provide anything about leadership in education. Except for the last four pages, the first 15 pages of the chapter are devoted to a general discussion on global interdependence. Although he raises some pertinent issues, such as the interdependence of global and local issues, the scale and depth of interdependence, and the increasing pluralism of the contemporary world, those looking for something on educational leadership will be disappointed. Scale and depth of globalisation process, according to him, are very critical. In the context of education, he examines three well known problems. First, the existing curricula and instructional content cannot change as fast as the market demand for new knowledge and skills. Secondly, the contemporary society demands creative and innovative skills which the existing educational system is ill-equipped to handle. Thirdly, it is also not capable of addressing the issues relating to values and erosion of social cohesion. He contends that educational leaders have not addressed these issues. Instead, they tinker with the existing systems. According to him, 'free-standing' curricula to fill the values gap will not help in contemporary world. But then what will help? There is no answer to that except a lot of general statements and rhetoric, such as 'skills needed for skillfully negotiating... values and norms, in the context of continuously and unpredictable interdependencies... are not the same as those needed to solve particular sets of normative problems....'

Whatever its virtue as an addition to the readings on higher education and globalisation, the book does not make any significant or new contribution. Given my own modest engagement with the interconnections between globalisation and higher education, I was looking forward to reading this book but have been disappointed.

Therefore, it prompts me to offer some critical comments and the way it has been handled. First, talking about form, the book makes for uninteresting reading. Generally, it is written in a terse language, adopts a moralistc and idealistic tone and leads nowhere. Secondly and most importantly, the editors are unable to offer an alternative to the existing dominant curriculum biased paradigm – I can say that on the basis of the chapters, introduction and conclusion I have read. The critique of the existing paradigm is full of rhetoric and the book does not go beyond what is already known. I would say that Ivan Illich had done this rather well. For the initiated the book is passé, the uninitiated will remain clueless.

C8/8256, Vasant Kunj
New Delhi-110070

Karuna Chanana
chananak@yahoo.com

Rameshwari PANDYA and Anuradha MATHU (eds.) (2004): ***Imbibing Value Education – Various Perspectives.*** Kalpaz Publications, Delhi-110052. Pages: 337, Price Rs.690/-. ISBN 8178352133.

This book contains 37 papers, presented at a national seminar on "Value Education: A Challenge for the Millennium for Home Science Extension" organized by the Department of Home Science, M.S. University, Baroda in January 2002. The book also carries a message from the Chief Minister of Gujarat, Narendra Modi, which essentially says that our ancient educational system, built upon 'values', gave us a distinct social identity that was later lost under the alien rule.

How are values developed in individuals? The editors in the preface write, "We live in a society where all interactions and experiences account for learning situations. These situations may lead to the development of certain characteristics and values. Broadly, these aspects could be either related to institution or personal or even familial. So, it is here that we have to give value education, which encompasses all these aspects and leads to desirable and meaningful results."

The 37 papers, by teachers, research students, engineers and educationists, have been were categorized into five parts: (a) Training Needs for Value Education amongst Home Science Students, (b) Value for Women's Empowerment, (c) Health, (d) Human Rights and (v) Values for Saving the Environment.

On certain aspects one may not need samples and quantitative techniques to pose the problem and analyze. There are some papers of this sort in the book. The paper by Geeta Sikdar on "Innovative Ways of Developing Excellence in Character" is thought-provoking on bringing up children. She says, "Begin today for a better tomorrow". Sangeetha Chaudhary and Bhamini Mehta in their paper on "Gender Equality for Adolescents: A Pedagogic Value" say, 'The day a child is born, her/his fate is decided by the society on the basis of the genitals she/he does/doesn't possess', and Reema

Chaurasia and Maneesha Shukul in their paper on "Violation of Women Rights in Industries: A Need for Value Education" cite the international evidence that women are fired if they become pregnant, refuse to work overtime or even if suspected of trying to organize. The paper by Karandikar and Raval covers the "Importance of Energy Conservation in Residential Sector" i.e. 'War against Waste'.

There are some papers that provide historical developments in certain relevant areas. In this context Sarika Sharma and Preeti, Shah's on the history of Home Science departments in Indian universities, and Arya Gupta's paper on human rights are quite pertinent. There are some other papers that suggest what to teach, syllabi to be covered and how teachers should perform. In this context, the papers by Ulka Shinde and Rajkumar Kamble, Awa Trivedi and Priyanka Pandey, Sonia Thakur and Monika Sharma, and Arya Gupta may be mentioned.

A member of papers analyze various hypotheses, covering issues such as [illegible]lies' views on education as a value, work attitudes of male and female college teachers, marital aspects as projected in the media, buying attitudes, value orientation of girl students, women's knowledge of governments' women empowerment programmes, discrimination of girl child, etc. Most of them are based on some samples collected for their studies. Whether the samples are appropriate and representative, adequate or otherwise – these issues do not seem to bother the authors, irrespective of importance of their research topics are. No paper has a convincing discussion on the sampling. Most of these studies, in my view; are based on too small, inadequate and non-representative samples. Many of the papers do not cite the given references in the text, and seem to be very casual in their approach. Almost all the papers were written as some kind of short notes.

One paper that seems to have been written according to academic way is by Malaya Bora and Kamala Kanta Saharia on "Perception and Value Orientation of Undergraduate Girl Students regarding Women Empowerment". The paper poses the problem as follows: Given that the "contribution of women to the family and to the society is viewed as secondary and in the pedestals of procreator, caretaker, facilitator, and additional, ... how the educated females (girls) feel about the concept of women empowerment and what thoughts they really harbour for the overall change of the situation for betterment?" Their sample of 100 girl students from a college in Guwahati has been drawn from hostelers *vs.* day-scholars, arts *vs.* science, and covers years of study, income, education and occupation of parents, family size, position of the student in the family and her social participation, frequency of family get-togethers, the most influential person to the student, and perception and value orientation of the student towards women empowerment. Several interesting features that emerge from the study include significant differences between the parental education, family income of students of science and arts streams, and larger variation of incomes among the arts' students' families. Another noteworthy feature is that teachers' influence on the students is way below to that of the parents, brothers and sisters!

I would like to briefly present my own views on some of the value-education related questions. Basically, what is meant by 'education'? Is it school education, college education, or university education? Is there something wrong with the present system of education? How much an individual can be educated? Are values something that can (need to) be taught? It is true, as the editors of this book say, that living in a society leads to situations of learning and developing various aspects of life, including values. Then why do we need formal education such as schooling etc? Are illiterates uneducated? Are literates educated (enough)? These are some of the questions that are often heard.

According to the Oxford Dictionary, 'to educate' means to 'give intellectual, moral, and social instruction', with a sub-sense of training or giving information on a particular subject. To me this implies two categories of education. It may be futile to expect moral values (former type) to be taught during the courses of electronics, electrical engineering, etc. (latter type). The former type that lays stress on morals etc. does not involve imparting earning ability, whereas the latter type bestows earning ability. With increasing competition and an attitude of becoming 'richer than thou', the latter type becomes the order of the day. In other words, the purpose as well as type of education has changed over time substantially. It is also quite difficult to devise a system that combines both types of education. This brings me to a more disappointing aspect of our society. Generally, any person's moral and social attitudes are mostly acquired at home and from the neighborhood environments. Nowadays, even that possibility is vastly diminishing, especially in urban areas. Basically, the reason is that families are becoming more and more nuclear families; and usually parents themselves end up spending less and less time with their children due to their own professional preoccupations. Children growing in this kind of environment are future parents who would have nothing of moral substance to offer to their children in turn. Teachers, who nowadays hardly (can) influence the students, are also a part of this process. To sum up, most of us are ourselves depriving our own children from being conscious and conscientious of intellectual, moral, and social values. For the former type of education we, as the parents, grandparents, friends, teachers and well-wishers of the children, are utterly failing. It is only for the latter type of education that schools, colleges, universities etc. are meant, and they seem to be doing their job reasonably well.

The book under review is useful at least from the perspective of raising some important issues in the context of imbibing value education, though analytically it is quite inadequate.

Indian Statistical Institute, 8th Mile, Mysore Road,
RVCE Post, Bangalore-560059

N. S. S. Narayana
nssnarayana@gmail.com

Journal of Educational Planning and Administration
Volume XXII, No. 2, April 2008

Joel E. COHEN, David E. BLOOM, and Martin B. MALIN (eds.) (2007): ***Educating All Children: A Global Agenda.*** Cambridge, Mass: MIT Press and the American Academy of Arts and Sciences. pp. 563+Index; (Paperback). Price: US$ 35.00. ISBN: 978-0-262-53292-8.

Ever since the Jomtien Conference in 1990, and the conference in Dakar in 2000, Education For All (EFA), specifically universal primary education, has become an important item on the global educational agenda. The Millennium Development Goals (MDGs) also include the Dakar goal of universal primary education by 2015. As Gene Sperling notes in the Foreword to the book, this "is simultaneously perhaps the world's *most important*, *ambitious*, and *pathetic* global goal" (p. xi; emphasis added). While most people recognise it as a very important goal, many others also recognise it as an ambitious goal – both for obvious reasons, but a few regard it as a pathetic goal. It is pathetic, because, not only the goal excludes secondary and higher education, it is also narrowly confined to primary education of five years, and implicitly and sometimes even explicitly assumes that universal primary education is possible only if and if the secondary and higher education is ignored. This assumption does not recognise the very existence of strong linkages between the various levels of education. Sperling, however, notes that EFA refers to basic education which is a little more than mere primary education, though most of the public attention gets focused to primary education. He further says that it is additionally pathetic because it aims only upto 2015. What happens after? Once the goal is reached, can we forget about it; is it not necessary that this is maintained so that children do not drop out from schools? Basically in the framework of the EFA and the MDGs, the approach to education has been a truncated one; rarely a holistic and comprehensive view of total education covering all levels is adopted.

Of late, there has been some but very limited realisation of this weakness, though even then the two global agendas continue to get confined to primary education. The realisation is many-fold: given the progress in primary education, demand for secondary education will increase and that it has to be met for its own sake and for the sake of sustaining the demand for primary education; secondly, secondary education might be a threshold level for education to have significant influence on development, as people with just primary education might relapse into illiteracy; thirdly, development of secondary education is important as it needs the requisite demand for teachers and administrators for primary education; and lastly, development of secondary education becomes essential for development of higher education, even if the later is to be on a limited scale.

Contrary to the general expectations from a title of this kind, the book under review goes beyond primary education, though it does not refer to higher education. 'Education' as such in the book largely means school education – primary and secondary. The book is an outcome of a five-year project of the American Academy of Arts and Sciences on Universal Basic and Secondary Education, which reviewed research on the rationale, the

means and the consequences of providing basic and secondary education of quality to all children between ages 6 and 17.

As it is rightly described, one can note the good, the bad, and the ugly part of educational progress in the developing countries during the last 4-5 decades. The good aspect refers to the terrific quantitative progress; the bad part refers to the huge deficit that continues to haunt the educational policy makers and planners around the world, in terms of the number of children who are outside the school system, the low retention rates and poor achievement levels in learning; and the ugly part refers to the gross disparities of all kinds in education in terms of quality and quantitative expansion – regional, economic, gender and by other characteristics. Primary and secondary education together poses daunting challenges to most of the developing countries. The ten major chapters in the book, apart from the introduction by the editors and Helen Anne Curry, give an in-depth understanding of the challenges involved in universal school education. David Bloom while assessing the global educational progress, critically surveys, in a 90-page chapter, the concepts, database and input measures, output measures, process measures and outcome measures, the later referring to external efficiency of education adopted in the evaluation of educational progress. He also reviews the recent empirical estimates on educational development and some of the literature in the area. In two major overview chapters in section 2, Aaron Benavot & Resnik and Javier Corrales present a socio-historical analysis of primary and secondary education, and the political obstacles faced in the contemporary period by the developing countries in improving school education. The historical review by Benavot and Resnik, describes how valuable the compulsory education laws have had been in some of the countries, how formal schooling systems emerged, and what role the international organisations played in the post-World War period in this regard. Corrales' description of the role of the political factors is interesting. Nationalist, revolutionary and even totalitarian ideologies of some of the countries had been most influential in educational reforms. Though these factors might lose their significance in the contemporary global era, political factors are still important in improving education. They can play significantly positive role, though they are often found to be posing obstacles. Assessment and evaluation of educational progress is the focus of the three chapters in section 3. Assessment and evaluation of educational practices serve a variety of purposes. They help in tracking the development, identifying weaknesses for correction, and for planning and funding. Henry Braun and Anil Kanjee highlight the importance of developing institutional capacity, technical experience and resources to initiate reliable and useful assessment of educational progress.

Paul Glewwe and Meng Zhao present a critical review of some of the important global cost estimates of attaining universal primary education. They have reviewed two studies by the World Bank, one by UNICEF and one by UNESCO. The estimates range between US$ 6.5 billion and US$ 35 billion per year to achieve universal primary education by 2015. Most of these estimates concentrate on capital costs, i.e., construction of additional classrooms/school buildings, and current expenditures. In a sense, most of

the estimates are simple and straight, based on a variety of assumptions. They also do not include household costs, which are generally found to be substantial in many developing countries, including those countries where primary education is expected to be provided 'free'. Further, rarely the current expenditures include special subsidies needed to stimulate demand for education of the marginalised sections of the societies. Using the estimates made by the World Bank (Barbara Bruns, Alain Mingat and Ramahatra Rakotomalala: *Achieving Universal Primary Education by 2015: A Chance for Every Child*; Washington DC: World bank, 2003), the authors make further simulations and estimate the financial gap after considering domestic resource availability. Melissa Binder in another chapter makes an attempt to estimate cost of providing universal secondary education in developing countries. At global level, there are few estimates on costs of universal secondary education, and hence Binder's fresh estimates assume significance. Obviously the cost of universal secondary education will be greater than that of universal primary education. Binder's estimates, under alternative assumptions on how gradual or fast the expansion would be, range between US$ 27 billion and US$ 62 billion per year. As the authors rightly conclude, "the research done to date is inadequate to provide a plausible estimate" of the cost of attaining universal education. (p. 448). This applies to both primary and secondary education. In a sense, some of the country level studies provide much better and more detailed data in this regard, though they are also not perfect.

The last section reviews the empirical foundations of education-development relationship, and how education contributes to various facets of development – economic development, reduction in inequalities, health, and political development. The reviews are not just confined to primary and secondary education; they provide a strong theoretical and empirical rationale for investment in education.

Educating All Children is a very useful volume, though its net value addition to the literature is not highly significant. The material presented in the book is somewhat well known and there are no new or emerging aspects that come to light. Nevertheless, the book is interesting and informative in itself. All the chapters are well written and are clear and easy to read. Many readers would welcome the basic description, which would add to their fact base. The single most important contribution of the book lies in its plea to take the global agenda beyond what is mentioned in EFA and the MDGs. The authors provide a strong and convincing ground for this. Secondly, it provides a scholarly review of the problem, the research and analyses, covering methodological and empirical aspects, which all those engaged in educational policy analysis would find very useful. Discussion on some of the methodological aspects attempted in the book will help in improving rigour in future research on these issues, and the discussion on practical problems will bring realism in work.

Department of Educational Finance, NUEPA
New Delhi-110016

Jandhyala B G Tilak
jtilak@vsnl.com [or] jtilak@nuepa.org

Journal of Educational Planning and Administration
Vol. XXII, No. 2, April 2008

INDIAN JOURNAL OF AGRICULTURAL ECONOMICS
(Organ of the Indian Society of Agricultural Economics)

Vol. 63	APRIL-JUNE 2008	No. 2

CONTENTS

Annual Subscription Rates

Individual Membership Fee : Rs. 300.00; £ 35.00; $ 75.00.
Life Membership Fee : Rs. 3,000.00; £ 350.00; $ 750.00.
Institutional Subscription : Rs. 600.00; £ 54.00; $ 125.00.

Please address correspondence to the Hon. Secretary and Treasurer, The Indian Society of Agricultural Economics, Krishi Vikas Sadan, First Floor, (Near Dr. Antonio Da Silva Technical High School), Veer Savarkar Marg (Cadell Road), Dadar (West), Mumbai – 400 028 (India).

Telephone : 022-24374789; Fax : 091-022-24374790; email : isae@bom7.vsnl.net.in; website: www.isaeindia.org

JOURNAL OF RURAL DEVELOPMENT
Editor and Chairman: Shri B K Sinha, Director General
Vol.27 April – June, 2008 No.2

CONTENTS

Subscription Rates
Indian Annual Subscription
Individual: Rs.200/- + 160/- (Regd. Post Charges)
Institutions: Rs.500/- + 160/- (Regd. Post Charges)

Life Membership: Rs.3500/-
Annual Institutional Membership: Rs.1200/-
Foreign Annual for JRD: US$ 50/U K £ 40
Foreign Institutional: $250 (50% discount to developing countries) Orders may be sent through Demand Draft in favour of
National Institute of Rural Development to the address given below:

NIRD

Head (CMRD)
National Institute of Rural Development
Rajendranagar, Hyderabad- 500 030, India
Telefax:91-040-24008473, E. mail: ciec@nird.gov.in
Website:http://www.nird.org.in

Journal of
Educational Planning and Administration

Regarding subscriptions, advertisement, circulation, missing issues, etc., please contact

Deputy Publication Officer
National University of Educational Planning and Administration
17 B Sri Aurobindo Marg, New Delhi 110016
Tel: 26861635(Direct) or EPABX: 26962120 Extn. 316 and 313
E-mail: publications@nuepa.org

Regarding exchange of the Journal and missing issues, please contact

Librarian
National University of Educational Planning and Administration
17 B Sri Aurobindo Marg, New Delhi 110016
Tel: 2686 2507 or 26962120 Extn. 111
E-mail: deepakmakol@nuepa.org

Only editorial matters be addressed to the Editor, JEPA

Tel: 26861320 or 26962120
E-mail: jepa@nuepa.org

For more details please log on to our website **www.nuepa.org**