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Household Expenditure on Elementary Education: Implications for Cost Recovery Mechanisms

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Abusaleh Shariff,
Tarujyoti Buragohain
and
P.K. Ghosh

National Council of Applied Economic Research

Parisila Bhawan, 11, I.P. Estate

New Delhi - 110 002 (India)

Tel.: (91-11) 331-7860-68 Fax: (91-11) 332-7164

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CONTENTS

Introduction	1
Objectives	3
Data Base and Methodology	4
<i>Sources of Data</i>	4
Major Findings	4
<i>Marginal Propensity and Income</i>	4
<i>Elasticity of Education</i>	
Household Expenditure on Elementary Education	6
Expenditure on Education by Type of Schools	11
Cost to Universalise Elementary Education in India	15
Community Financing of Primary Education	18
Conclusions	22
References	23

Abstract

This paper presents the pattern of household expenditure on elementary education according to types of schools (such as government, aided and private) for major states and all India. It is hypothesised that the household expenditure on education reflects household demand for education besides ability to pay for education. Households in the highest income group spend about three times more on children's education than households in the low income groups. Household expenditure on education is higher among the large landowners, the upper segment above the poverty line groups, minorities, cases where both parents are literate, and in 'developed' villages. India typically has a high expenditure elasticity and low marginal propensity to spend on education. Very high expenditure elasticity confirms the fact that the Indian expenditure behaviour is entrapped in the poverty syndrome, which makes education a superior good at any given level of income and price constraint.

If the goal of education for all has to be realised in the near future, community financing is urgently required both to supplement government expenditure and to improve quality of education and to alleviate supply constraints. In spite of such efforts, children belonging to poorer households may not attend schools because of other direct costs and also because of the opportunity cost attached to child labour. This paper therefore discusses the mechanisms, that can help to ensure, both enrolment and continuation of pupils from the poorer classes at the local and village level in a system of education based on community financing and participation.

JEL Classification

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Keywords

Household Expenditure; Elementary Education;
Cost recovery; and Community financing

Household Expenditure on Elementary Education

Implications for Cost Recovery Mechanisms

Introduction

Household expenditure on education can be considered a good proxy for the household demand for education in developing economies. Demand for education is determined partly by the levels of disposable income and partly by socio-cultural factors. Household expenditure may be governed and guided by felt educational needs and ability of households to pay for their children's education. Ability to pay in-turn will be influenced by the price to be paid and level of household income. Therefore one may expect the expenditure on education to differ substantially from one income group to another. Households spend their incomes on items such as tuition fees, books, stationery, school uniforms, hostel charges, transport and so on. Expenditure on education also depends on supply factors, such as types of school and location of educational facilities, as well as individual choice and preferences for quality education. Therefore, both demand and supply factors influence the determinants of household expenditure on education.

Expenditure can be classified as direct as well as indirect. Direct expenditure on schooling is the money spent by parents on school uniforms, books, stationery, private tuition, transport and so on. A closer look at structure of the household direct expenditure on elementary education qualifies it to be a user charge. By and large, such expenditure (charges) is the same for all students in a given institution. However, such charges differ from institution to institution and from place to place. The relatively better-off send their children to fee charging private schools, whereas the poor choose local, and non fee charging government schools. The quality of teaching and the learning process differ considerably between students and between institutions.

Thus income constraints lead to the choice of low quality and low cost education. However, high expenditure elasticity but low marginal propensity to spend for education implies that expenditure on education increases less than proportionately with income. Very high expenditure elasticity confirms the fact that expenditure behaviour in India is

entrapped in a poverty cycle and making education a 'superior' service at any level of income and price constraint.

The majority of people in India consider expenditure on education to be an investment, which is expected to reap both short and long-term returns. Besides enhancing opportunities for employment, education also augments efficiency and productivity. Education is capable of transforming the existing order and of defining the aims and objectives of authentic human resource development (Bataille; 1976, Dreze and Sen, 1995). Education is a pre-requisite for modernisation of agriculture (Bluag, 1970); and has proved to have a significant influence on agricultural yield in India (Chaudhuri, 1968). The principal effect of literacy has been to provide the people with an additional means of communication. Literacy has been found to contribute to the development of an economy, through a number of processes. For example, it will raise the levels of productivity of the newly educated as well as of those individuals working in association with the literate (the 'first-round' spillover effects of literacy). Education reduces the cost of transmitting useful information to individuals, such as in case of health and nutrition, by strengthening new channels of dissemination of knowledge; it also stimulates the demand for vocational training and technical education, and strengthens incentives in economic transactions. Although these are not exhaustive direct and indirect economic benefits of promoting literacy in poor countries, they are most obvious ones (Bertelson, 1965; Doob, 1961: 173-79; Schuman, Inkeles and Smith, 1967; and Wharton, 1965). As Schultz (1964) has pointed out, literacy has "a pervasive value in reducing costs and improving the productivity of the economy". Illiteracy also has been identified as a limiting factor in the rate of growth in agriculture. Although the private rate of return to education is much higher than the social rate of return, mass education normally is the state responsibility in most civil societies. The indirect return from educating women in terms of enhanced reproductive and child health is often not even accounted for as a benefit of education.

Gender disparity in education is observed to be very high among children in India. Although a number of socio-cultural reasons exist, inadequate household income is the main factor responsible for low education among girls (Shariff 1999). If the universalisation of

elementary education has to be realised, the mobilisation of resources to finance not merely institutional expenditures but also to put in place incentives for augmenting girl's enrolment and education would be needed. Such an approach seems possible if community financing strategies complement public and private investment in elementary education.

Community financing refers to the contributions made by individuals, households and groups of people belonging to local areas to support a part of or augment the quality of elementary education. Often such efforts need collective action on the part of all the people ordinarily residing in a clearly defined geographic area. Since mass education is a public good and produces returns which augment economic growth as opposed to higher education which produces private returns, it is obvious that it should become the duty of the state to provide for elementary education. Although this provision is one of the listed directive principles enshrined in the Indian Constitution; both the national government and state governments, excepting Kerala, Goa and some North-Eastern States have failed to make this a reality. The publicly provided schooling facilities are not only inadequate but also of poor quality. Often even this education which is supposedly free has both direct and indirect costs associated with it. Private schooling has emerged even at the primary and elementary level in rural areas. Government and public bodies should have an ever increasing responsibility to provide mass education both at the low levels of national income or as the national income increases; this is true of the most advanced countries in the world. However, if the community as opposed to households can bear the major part of the cost of elementary education, they can also bargain for better quality education through better management and administration. This will not only ensure people's participation in the dispensation of education but also in decisions on the content of education.

The following are the main objectives of this paper.

Objectives

1. To present household expenditures on elementary education according to type of school.

2. To present the income elasticity for total education.
3. To explore the mechanisms for community financing.

Data Base and Methodology

Sources of Data

Data from two sources have been used to address the issues and objectives laid down in the preceding review. Information available from the NCAER's Human Development Survey of 1994 and Market Information Survey of Households (Education), 1993 are analysed and disaggregated according to type of school. Secondly, the time series data for the years 1970 to 1996 provided by the National Accounts Statistics on Private Expenditure on Education have been used to estimate marginal propensity and elasticity of income for education.

In this study, the schools have been divided into three types on the basis of management, namely, government, government aided and private schools. The schools run by the state or central government, public undertakings and autonomous organisations, municipal corporations, municipal committees, notified area committees, *zilla parishads*, *panchayat samitis*, cantonment boards and so on are considered as government schools. Schools which are managed and administered by a private organisation or agency and receive maintenance grants and / or teachers' salary from the government or local body are classified as aided schools. Schools managed by private individuals, organisations or agencies with no support either from the government or local body are identified as private schools. Non-Government organisations and religious foundations imparting primary education without receiving government aid are also identified as private schools. To arrive at per student household expenditure on elementary education, the number of children ever enrolled in the age group 6-14 years has been divided by total expenditure.

Major Findings

Marginal Propensity and Income Elasticity of Education

National Accounts Statistics annually estimate the Gross Domestic Product alongwith its structure and source. Thus data on private

household expenditures segmented by various sectors are available as an annual series. Data on private expenditure on education from this source for the years 1970 to 1997 are used to estimate the marginal propensity and elasticity of income for education. OLS and GLS regression procedures are used to estimate the marginal propensity to spend on education and income elasticity of demand for education.

Table (a)

	a	b	r²	t	Rho	D. W.
OLS Specification						
$C_i = f(Y)$	52.303	0.0143	0.94	18.733	0.604	0.7917
$\text{Log } C_i = f(\text{log } Y)$	-1.463	0.9276	0.92	16.304	0.573	0.8547
GLS Specification						
$C_i = f(Y)$	-28.161	0.0153	0.76	8.402	0.1932	1.6937
$\text{Log } C_i = f(\text{log } Y)$	0.038	0.6203	0.97	29.948	0.2779	1.4441

Where,

C_i is private expenditure on education; and Y is total private disposable income.

The bivariate-linear and bivariate log-linear OLS functions have been fitted first to assess the inter-relation extent of dependence of education expenditure on income and to estimate the income elasticity. This analysis confirms that marginal propensity to consume and income elasticity of education are positive which is expected. However, both linear and log-linear forms of the functions are affected by significant auto-correlation, which is reflected in Rho and D.W statistics presented in the table (a). Auto-correlation may arise because of (a) mis-specification of functional form or (b) exclusion of some important determinant or (c) errors of measurement in variables. In this case since there is no scope for the mis-specification of the functional form the auto-correlation possibly emerges from the omitted variable bias or errors in the data. However, we believe that the errors due to measurement are limited in these data largely because of the definitional standardisation ensured by the NAS. The GLS functional specification after appropriate adjustment of data for the first order auto-correlation

were also undertaken. The GLS estimates are considered more robust for the type of data used in this analysis. The GLS co-efficient remains positive and significant. The Rho and D.W statistics also suggested weak or non existent auto-correlation.

Now it is clear that the coefficient of the marginal propensity to consume (spend) on education is 0.0153 implying that among Indian consumers education is not a necessity as are for food and clothing at a given price of education and income. On the other hand the income elasticity for education has been found to be as high as 0.93 in the OLS specification and 0.62 in the GLS specification. Both these coefficients confirm the fact that expenditure on education increases less than proportionately with rise in income. These findings are to be expected since in India the largest proportion of consumers belongs to the lower income groups. Thus it is imperative that both public and organised community level efforts are needed to keep the expenditure on education at the desirable level in the economy. In the following; we present an analysis of the extent of expenditure on education by households which can effectively be channelled as community financing of elementary education in India.

Household Expenditures on Elementary Education

In spite of the provision for free primary and elementary level schooling through public facilities, often households spend substantial amounts directly and also indirectly to access such education. On the whole it has been estimated that household expenditure per student on elementary education is Rs. 378 for (rural) India (Table 1). About 96 per cent of this expenditure is incurred on purchase of books, stationery and uniforms, private coaching and fees. Another survey of 1992¹ also estimates household expenditure on elementary education to be Rs 464 per student. A major part of this expenditure was incurred on school uniforms, books and stationery. The share of fees and other payments to schools was of the order of about 20 per cent of this expenditure. Is the sole responsibility of the state to provide these variable and recurring but essential expenditures relating to elementary education? What is

¹ NCAER, Non-Enrolment, Drop-out and Private Expenditure on Elementary Education: A comparison Across States and Population Groups, New Delhi, 1992.

clear is that such direct expenditure impinge upon the capacity of the households to meet their basic requirements for a living. This expenditure becomes substantial when two or more children in one household have to be sent to school. Such economic hardship is one of the dominant reasons for the high gender differential in education as well high sibling disparity in levels of literacy.

As expected there are inter-state variations in the levels of household expenditures in education. The household expenditure on elementary education is almost double the national average in Punjab, Haryana, Himachal Pradesh and Kerala. The lowest expenditure on elementary education was found in Orissa, Madhya Pradesh, Gujarat, Maharashtra and West Bengal. Besides, costs for both government and private schooling are relatively higher in Punjab, Haryana, Himachal Pradesh and Kerala as compared to other states. The share of fees and other payments to schools are considerable in the states of Punjab, Haryana, Uttar Pradesh, the North-Eastern states, Andhra Pradesh and Tamil Nadu. While the percentage of children attending private schools is higher in Punjab, Haryana and Uttar Pradesh, which partly explains the high payments as fees, the higher expenditures in case of the other states deserve close scrutiny. For example, the households spend a substantial percentage of their household income on elementary education in the states of Himachal Pradesh and Kerala despite having below average number of children attending schools.

Table 1
Per Student Annual Household Expenditure on Elementary Education and Share to Annual Household Income

Region / State	NCAER Total expenditure (Rs)	1992* Share of exam. and other fees (%)	NCAER/HDI Total expenditure (Rs)	1994** Share of exam. and other fees (%)	% of Total Exp. on Edu. to Annual HH Income
NORTH					
Haryana	801	29.1	696	22.5	1.7
Himachal Pradesh	-	-	842	12.2	3.5
Punjab	612	20.9	670	28.5	1.8
UPPER CENTRAL					
Uttar Pradesh	-	-	351	26.1	1.6
Bihar	246	24.3	375	20.2	1.4
LOWER CENTRAL					
Madhya Pradesh	281	17.4	258	13.8	1.0
Orissa	309	17.4	253	15.6	1.5
Rajasthan	364	14.6	428	10.9	1.6
EAST					
North-eastern Rg.	587	12.4	404	22.0	1.4
West Bengal	504	10.5	316	8.5	1.7
WEST					
Gujarat	342	13.4	278	9.6	0.9
Maharashtra	329	15.5	302	7.2	1.0
SOUTH					
Andhra Pradesh	378	20.4	295	23.1	1.2
Karnataka	448	20.3	383	17.3	1.4
Kerala	754	23.6	586	8.8	2.0
Tamil Nadu	349	17.2	379	26.3	1.6
RURAL INDIA	464	18.7	378	18.2	1.5

* NCAER, Non-Enrolment, Drop-out and Private Expenditure on Elementary Education: A Comparison Across States and Population Groups, New Delhi, 1992.

** NCAER, India Human Development Report, A Profile of Indian States in the 1990s, New Delhi, 1999.

Table 2

**Percentage Distribution of Annual Household Expenditure
on Schooling and Proportion to Annual Household Income
(All Schools) (Age Group 6-14 Years)**

Population Group	Exam. & other fees	Books, station. & uniform	Coaching	Transpt	Board- ing & lodging	Total	Av. No. of stds per household	Exp. On Edu a % to Annual HH Income
1	2	3	4	5	6	7	8	9
HHOLD INCOME GROUPS								
Up to 20000	16.8	71.8	8.0	2.1	1.4	512	1.7	4.6
20001-40000	17.1	66.9	10.9	2.6	2.6	731	1.8	2.6
40001-62000	18.0	61.8	11.8	6.2	2.2	938	1.9	1.9
62001-86000	20.3	64.8	9.3	3.0	2.6	1008	2.1	1.4
Above 86000	23.3	58.5	11.2	4.2	2.8	1399	2.3	0.9
POVERTY LINE GROUPS								
Lower segment below	16.8	73.6	6.9	1.5	1.3	510	1.8	7.3
Upper segment below	17.6	71.4	8.2	1.8	1.1	548	1.8	4.4
Lower segment above	16.3	69.6	9.2	2.7	2.0	667	1.8	3.0
Upper segment above	20.8	58.1	13.0	5.0	3.1	1003	1.8	1.7
LANDHOLDING GROUPS								
Landless wage earner	16.6	74.3	6.3	0.9	1.8	429	1.6	3.8
Marginal	16.1	69.5	9.9	2.9	1.6	653	1.8	3.3
Small	18.1	67.0	9.9	3.5	1.4	683	1.8	2.3
Medium	18.4	68.0	8.2	3.5	1.9	774	2.0	1.7
Large	19.2	65.1	9.6	2.2	3.9	1047	2.2	1.2
Landless others	2.0	60.9	12.4	4.0	2.7	762	1.8	3.5
Landowners	17.4	68.0	9.6	3.1	1.9	715	1.8	2.3
Landless	18.8	65.4	10.4	3.0	2.4	606	1.7	3.7
OCCUPATION GROUPS								
Cultivators	17.9	69.5	8.6	2.5	1.5	657	1.8	2.0
Salried+Prof.+S.Empl	19.4	60.7	11.3	4.9	3.7	1022	1.9	2.8
Wage earners	15.0	76.1	6.3	1.1	1.5	446	1.6	3.5
All others	18.0	62.6	13.9	3.7	1.8	735	1.8	3.5
SOCIAL GROUPS								
Caste								
STs	13.1	71.2	5.2	6.0	4.5	511	1.7	2.6
SCs	15.1	72.3	9.5	1.4	1.6	514	1.7	2.9
Religion								
Hindus	17.5	67.4	10.1	2.8	2.2	667	1.8	2.6
Muslim	19.1	65.3	9.5	3.8	2.3	625	1.9	2.7
Christians	15.4	68.2	10.6	5.8	-	885	1.7	3.0
Other minorities	23.8	65.8	5.4	3.7	1.3	1069	1.9	3.5

(Contd.)

Table 2 (Contd.)

1	2	3	4	5	6	7	8	9
HOUSEHOLD SIZE GROUPS								
Upto 4	18.9	64.9	10.2	4.3	1.7	569	1.3	3.1
5-7	17.1	67.5	10.0	3.1	2.3	652	1.7	2.6
8 and above	18.7	67.7	9.3	2.4	1.8	808	2.2	2.0
ADULT LITERACY GROUPS								
None literate	16.3	75.6	5.2	1.1	1.7	413	1.6	2.7
Female literate	16.9	69.1	7.8	5.6	0.6	676	1.8	3.5
Male literate	17.4	71.9	7.5	1.7	1.5	581	1.8	2.4
Both literate	18.5	62.6	12.3	4.0	2.6	891	1.9	2.5
VILLAGE DEVELOPMENT GROUPS								
Low	17.9	70.2	7.1	2.8	2.0	601	1.8	2.5
Medium	17.5	67.4	9.9	2.8	2.4	680	1.8	2.7
High	18.2	65.0	11.6	3.5	1.7	746	1.8	2.7
ALL GROUPS Person	17.8	67.2	9.8	3.1	2.1	680	1.8	2.6
Gender Disparity	0.93	1.04	0.93	0.90	0.86	0.68	0.72	

Source: NCAER, India Human Development Report, A profile of Indian states in the 1990s, New Delhi.

Table 2 presents the percentage distribution of annual household expenditure on schooling according to various segments for eight different types of population groups. What emerges out is that the relatively poor spend a relatively larger share on books, stationery and uniforms compared to the relatively well off. They pay almost as much as the charges levied as exam and other types of fees for both primary and elementary levels of schooling. The poor are seen to spend disproportionately large shares and prohibitively high shares of their total household income on education². This is true for all the poor identified either by measuring household income, or according to poverty line classification, or based on land holding criteria or occupation. The data presented are per household expenditures and not per eligible household expenditures in which case the expenditures as proportion to total household income will be much more. The pinch of paying high shares of annual household income for educating children upto the elementary level is felt more by the Scheduled Castes and Muslims in India.

² The expenditure on elementary education and health care has been found to be closer to 30 per cent of the annual household income for about 20 per cent of households classified as the poorest of the poor. (See Shariff, 1999).

Expenditure on Education by Type of Schools

Table 3 presents information on the distribution of expenditures according to school types. The school types are categorized as government, government-aided and private schools. By and large government schools are the least expensive followed by aided schools, and private schools are the most expensive. The expenditure for education of children in government schools is 20 per cent less than in aided and about 58 per cent less than in private schools. In fact private primary and elementary schools are two to three times more expensive than government schools. Except for Kerala and West Bengal, Punjab, Uttar Pradesh and Haryana over 90 per cent of children attend government schooling (Table 4). In Kerala and West Bengal a substantial percentage of pupils attend government-aided schools as well:

The per- student direct household expenditure for boys in India is Rs. 291, Rs. 367 and Rs. 726 in government, government- aided and private schools respectively. It is evident that there is a strong gender bias favouring boys in expenditures on education. In all three types of schools, the household expenditure on elementary education for girls is consistently lower. The household expenditure on boys' education in private schools is about 7 per cent more than on girls, despite incentives, such as tuition fee waivers for girls. Moreover, in spite of there not being evidence that the quality of private schooling is better, more boys are sent to private schools. Over all, the demand for education in private schools has been increasing over time.

Table 3
Per Student Direct Expenditure on Elementary Education
(aged 6-14 years) by Type of School in Rural India, 1994

Region/ State	Government Schools			Aided Schools			Private Schools			All Schools		
	Boys	Girls	Dis.	Boys	Girls	Dis.	Boys	Girls	Dis.	Boys	Girls	Dis.
NORTH												
Haryana	548	553	1.01	1711	1012	0.59	1380	1367	0.99	699	641	0.92
Himachal	791	749	0.95	1583	1236	0.78	1810	1512	0.84	851	781	0.92
Punjab	470	427	0.91	2395	1734	0.72	1317	1284	0.97	699	580	0.83
UPPER CENTRAL												
Bihar	289	292	1.01	331	309	0.93	983	861	0.88	364	330	0.91
Uttar Pradesh	259	273	1.05	421	347	0.82	488	439	0.90	349	329	0.94
LOWER CENTRAL												
Rajasthan	410	391	0.95	383	664	1.73	729	897	1.23	421	418	0.99
Madhya Pradesh	232	225	0.97	258	-	-	691	727	1.05	254	242	0.95
Orissa	247	245	0.99	197	220	1.12	296	407	1.38	238	246	1.03
EAST												
NER	272	250	0.92	350	344	0.98	1289	818	0.63	349	340	0.97
West Bengal	287	291	1.01	285	303	1.06	1366	753	0.55	301	303	1.01
WEST												
Gujarat	196	180	0.92	318	296	0.93	1018	1023	1.00	241	214	0.89
Maharashtra	272	266	0.98	410	378	0.92	549	538	0.98	304	287	0.94
SOUTH												
Andhra Pradesh	182	208	1.14	245	475	1.94	942	891	0.95	265	276	1.04
Karnataka	257	275	1.07	1073	677	0.63	863	806	0.93	360	334	0.93
Kerala	486	507	1.04	499	505	1.01	868	988	1.14	551	547	0.99
Tamil Nadu	286	298	1.04	446	773	1.73	869	748	0.86	347	370	1.07
RURAL INDIA	291	292	1.00	367	361	0.98	726	677	0.93	354	340	0.96

Source: NCAER, India Human Development Report, A profile of Indian states in the 1990s, New Delhi 1999.

Table 4
Trends in Percentage Distribution of Students
(aged 6-14 years)

Region/ State	<u>Govt. Schools</u>		<u>Aided Schools</u>		<u>Private Schools</u>		<u>All Schools</u>	
	NCERT ¹ 1986	NCAER ² 1994	NCERT 1986	NCAER 1994	NCERT 1986	NCAER 1994	NCERT 1986	NCAER 1994
NORTH								
Haryana	99.2	85.3	0.6	1.8	0.2	12.9	100	100
Himachal Pradesh	99.1	94.8	0.4	0.4	0.5	4.8	100	100
Punjab	98.2	78.8	1.4	1.6	0.5	19.6	100	100
UPPER CENTRAL								
Uttar Pradesh	83.7	56.3	7.8	16.5	8.5	27.2	100	100
Bihar	98.6	79.9	1.3	11.5	0.1	8.7	100	100
LOWER CENTRAL								
Madhya Pradesh	97.1	84.1	1.7	12.1	1.2	3.8	100	100
Orissa	74.7	74.4	23.9	21.3	1.7	4.1	100	100
Rajasthan	95.8	93.1	1.9	3.5	2.4	3.4	100	100
EAST								
West Bengal	71.5	20.5	28.5	78.5	-	1.0	100	100
WEST								
Gujarat	94.9	78.2	5.0	19.7	0.6	2.0	100	100
Maharashtra	82.2	80.5	15.9	17.9	2.0	1.5	100	100
SOUTH								
Andhra Pradesh	92.7	88.5	5.6	1.4	1.7	10.2	100	100
Karnataka	92.5	86.2	6.0	4.2	1.4	9.6	100	100
Kerala	40.2	30.9	58.6	57.1	1.2	12.0	100	100
Tamil Nadu	78.5	83.8	21.3	9.1	0.2	7.0	100	100
RURAL INDIA	85.9	68.0	12.0	22.2	2.1	9.8	100	100

1. Fifth All-India Education Survey, NCERT, 1992.

2. NCAER, India Human Development Report, A profile of Indian states in the 1990s.

Across income groups household expenditure per student rises from low to high income groups, which implies positive income elasticity (Table 2). However, the proportion of total income spent on elementary education falls as one moves from low to high income groups. A part of this rise is perhaps due to the difference in the quality of education received by children from different income groups. The household expenditure is high for the low income groups in most states. Very high per student expenditure is observed in Himachal Pradesh in all type of schools. Variations in household expenditure across occupation groups

follows the expected pattern, that is professional and salary earners spending more than those in other occupation groups. Among these groups there is a higher demand for education and quality is also important leading to a willingness to spend more for get better quality education for their children. Similarly, household expenditure on education is higher among minorities, large landowners, the upper segment above poverty line groups, both literate parents and high village development groups.

Despite substantial household expenditure on elementary education which reflects a high demand for elementary education, about 54 million children in the age group (6-14) are estimated to be out of schools in India (during 1994). The survey ranks possible reasons for non-enrolment of children. These are supply related, demand related, lack of interest and customary factors. *Supply related factors* are: 'school too far' or 'dysfunctional school'. *Demand factors* include financial constraints, constraints arising from participation in household economic activity and participation in paid work outside home. *Lack of interest factors* are: parents not concerned of the value of education, and 'child unwilling to attend school'. *Customary factors* include 'child married off' and 'traditional practices' which are often cited in the case of females not attending schools.

The single most important reason for non-enrolment and non-attendance in most states is the lack of financial resources. This points to a high opportunity cost for education that is intrinsic to poverty. For example, various labour force surveys reveal that a large proportion of rural girls not only work as household helpers engaged in domestic chores but also undertook paid work outside the home is largely induced by economic hardship.

If elementary education in India is to be provided free of cost to citizens, then school enrolment and continuation rates should not differ across states and population groups. The enrolment rate for rural India as a whole is 71 per cent with a gender disparity of 0.84 showing a deficit of 16 per cent for girls. As expected, enrolment rates are generally high in the southern and western states with low gender disparity. Besides having the lowest level of enrolment, Bihar and Rajasthan suffer from high levels of gender disparity. Girls lag behind even at elementary

levels of schooling. Disparity in disposable income seems to be one of the dominant reasons for persistent inequalities in areas such as education. An improvement in household income would be a necessary but not sufficient step for alleviating gender bias at the primary and elementary levels of education. The expansion of the school network across India does not seem to have benefited all members of society equally. Girls do not attend schools not only because the schools are located at a distance, but also because female teachers are not recruited. The educational needs of Scheduled Tribes, Scheduled Castes and the disadvantaged minorities have not been addressed by the prevailing schooling system in many states in India.

Cost to Universalise Elementary Education in India

Both national and state level information on effective enrolments, discontinuation and attendance rates are not available for recent years. In addition to the Sixth All India Education survey results that are now available, NCAER conducted a nationally representative sample survey to create a human development profile for states and for selected social groups by religion and caste according to the Scheduled list in the Constitution of India.. These parameters are based to highlight the resource gap in universalising elementary education in India. Universalization of elementary education is a constitutional provision and is a priority of the Government of India.

Although estimates are available for rural India, a procedure for estimating the number of non-enrolled children in urban areas does not exist. The survey estimates are approximates and refinements are possible. However, it may be said that given a huge resource gap any refinement in these estimates can only marginally alter the size of resources needed to universalise elementary education. In undertaking these estimates no allowance has been made for improving the current quality of primary education, which, as is well known, is far from satisfactory. However, this aspect has been kept out of the exercise and requires a separate paper. Provision has also not been made to include the cost of retaining dropouts in these estimates. However, the cost of mid-day meals has been recorded as a separate category, and if these help in retaining children in schools, then these costs must be included

in the total estimates for as the cost of universalising elementary education.

The expenditure on elementary education has been estimated at (a) the household level and (b) the public, community and private sector level.

The per pupil expenditure works out to be Rs 378 at household level and Rs 840 at public/community and private sector level. Total average annual expenditure per pupil works out to Rs 1,218 for a child studying at any level in the age-group of 6-14 years. Thus the total expenditure on 146 million children who are in school has been estimated to be Rs 177,828 million. The corresponding additional expenditure needed to enroll the 59 million children who are outside school worked out to be Rs 71,862 million.

Thus the total cost of universalizing elementary education notwithstanding the above assumptions has been estimated to be Rs 249,690 million in 1995. In addition, there has to be a capital expenditure on school buildings, mid-day meals and cost escalations to account for the growing number of children at the rate of about 2 per cent per annum. Thus it can be said that in order to keep all children aged 6-14 years in school in India at the existing level of quality, a total of Rs 249,690 million., i.e. about 3.5 per cent of GNP is required. This works out to 57 per cent of the estimated total national plan budget expenditure, that is Rs 436,620 millions for 1993-94. Currently, however, public expenditure is only about 42 per cent (Rs 105,922 m) of the total requirement and about 1.5 per cent of GNP. GNP at current prices for 1993-94 was Rs 720,531 crore.

Estimated Cost of Universalising Elementary Education in India

Estimated 6-14 years old as on March 1995 (millions)	Total	Rural	Urban
	205	152	53

Deflators

Rural: 30% non-enrolment in rural areas (evidence from NCAER, 1994).

Urban: 15% of 70% urban children not-enrolled and 50% of the remaining 30% of urban children not-enrolled.

Estimated number of children attending schools (million)	146	106	40
Estimated number of children not attending schools (million)	59	46	13

Expenditures: (in millions)

Household expenditure per pupil / year @ Rs 378/-	Rs 55,188 m
Public, Community and Private sector expenditure per pupil/year @ Rs 840/-	Rs122,640 m
@ Rs1218 per pupil total expenditure per year	Rs177,828 m

- (a) Total expenditure on children attending school as on March 1995 Rs177,828 million.
- (b) @ Rs1218/- per pupil/years it requires Rs 71,862 million to enroll 59 million children who are outside school.
- (c) To impart universal elementary education it costs a total of Rs249690 million.

Additionally

- (d) Should mid-day meals continue to be an integral part of the elementary education programme, it would cost an additional Rs 61,500 million.

- (e) To provide bare minimum infrastructure to the 59 million non-enrolled children about 1970,000 classrooms are needed and @ Rs 25,000 per class room it would require cost a total of Rs49,250 million one time capital cost.

Escalate annual expenditure @ at least 2 per cent over an above the rate of inflation to account for additional increase in pupils.

Community Financing of Primary Education

Given the failure on the part of the national and state governments and public bodies to meet the goal of imparting universal elementary education, and lack of responsible intervention by the private sector, community involvement is imperative. It may, however, be noted that in the scheme of any civil society, although financing and planning for education is the state responsibility, the choices relating to content, type and nature of education to be imparted should be the domain of the local community. Besides the public should also have a say in the dispensation of education to their children through an involvement in day- to- day schooling matters, including interaction with teachers and local bureaucrats. Such participation may not be forthcoming if the community does not directly contribute to the expenditures incurred on education. In the present system, every citizen contributes in one way or another to the national and state pool of fiscal accruals, through direct and indirect tax payments, land taxes, excise, municipal cess and so on. But this type of financing of the government does not accord propriety nor the right to link it to the high priority social expenditures such as for education. Thus to ensure participation and involvement in educational sector decision - making, a direct financial and local fiscal contribution by the community at large, and parents in particular, is essential. This strategy will improve not only community participation in decision - making but also make it empowered to make policy level changes that may impinge upon the type and quality of education it to chooses. Providing choice based education should be the future strategy in order to keep pace with the revolution of knowledge and the technological revolution as well.

Community participation and involvement may be viewed as both supplementary and complementary to public efforts. Community

financing and involvement becomes supplementary in so far as such participation enhances low levels of enrolments and continuation rates, and complementary if such efforts also improve the quality of current education.

Community involvement is required primarily to meet the basic needs of education. Community involvement and parent-teacher associations have an important role to play. The Provision of land and space for schools and playgrounds, and contributing labour and material for the school building are normally met by the community or panchayats. However, providing recurring expenditures are often considered to be the sole responsibility of the government. However, if the community can also partly fund from local areas to provide for the teacher's salaries and other facilities such as blackboards, furniture and teaching aids, it will be in a position to keep a check on the quality of education.

Community financing has become especially important in countries where governments have been unable to meet the full demand for education although community financing may be desirable because it increases the resources available for education and reduces the burden on government. Community financing is not always well designed because the degree of cohesion within communities varies considerably. Policy makers cannot assume that a group of people living in a village have a strong sense of community. Government and other personnel must step in to create a sense of community among the people who would otherwise not work together. Government personnel and project designers may need to treat different communities in different ways. In Uganda and many other African countries, 65 to 90 per cent of total costs were borne by the parents and the community during the 1980s and 1990s. Household inputs were also substantial at the secondary level; in 1994 they were estimated at 70 per cent even in government - aided schools. In Togo, communities and parents have had to provide up to two-thirds of the resources needed to operate public sector schools and in the mid-1990s about 400 community primary and secondary schools with about 27,000 pupils were operating outside the public system. In Chad in 1991-92 communities employed about 40 per cent of primary school teachers. In Malawi, community - run primary

schools unassisted by the government made up 20.5 per cent of all primary schools in 192-93 and enrolled 9.5 percent of all primary students. Even in a country as large as China, during the 1990s about 41 per cent of all full-time primary and 10 per cent secondary teachers were employed by the community. In Nepal in 1991, about 18 per cent of secondary schools were operated by the community (World Bank 1998).

In India there are a few schools managed by communities. Parent-Teacher Associations are a very strong element in such schools and well-qualified trained teachers are appointed by the community. Such schools are seen to provide better education compared to government schools.

This paper presents some preliminary calculations to show that there is substantial scope to devise mechanisms to channel the already high private household expenditure on elementary education. It is observed that about 75 percent of household expenditure goes on account of examination fees, other fees, books and stationery, and transport even in government schools. A total about Rs. 2,764 crores is spent on such account despite the fact that government schools are supposed to be free. Some government schools distribute books free of cost. But such distribution of books has not been very effective as because students rarely get books at the beginning of the year. Hence, most parents necessarily purchase books before they can avail of a free supply. Therefore, it is proposed that more than half of the current household expenditure be appropriated through the community. If there is a proper understanding between government schools and the community, the amount of Rs. 2,765 crores can be utilised for non-enrolled children who can be educated from existing levels of household expenditure (Table 5). Even if about half of the present rate of household expenditure is channelled through community financing strategies all 53-55 million out-of-school children can be enrolled in school.

Table 5
Feasibility of Community - Level Funding for Out of School Children aged (6-14) years

State	6-14 yr old Population 1993-94#	Enrolment Rate*	Total Enrolled Children*	Per Student Household Exp. in Govt. School in Rs.*	Household Exp. on Exam. fees other fees books & stationery transport in Rs.*	Estimated Resource available for out of school children (Rs. in Crore)	Estimated out of School Children
Northern Region							
Haryana	3326463	78.1	2597968	608	456	119	728495
Himachal Pradesh	988409	92.7	916255	815	611	56	72154
Punjab	3606303	86.8	3130271	479	359	112	476032
Upper Central Region							
Bihar	17289731	58.8	10166362	311	233	237	7123369
Uttar Pradesh	28201921	64.2	18105633	289	217	392	10096288
Lower Central Region							
Madhya Pradesh	12694807	62.6	7946949	243	182	145	4747858
Orissa	4866169	70.9	3450114	247	185	64	1416055
Rajasthan	9406972	61.3	5766474	432	324	187	3640498
Western Region							
Gujarat	7742467	80.3	6217201	227	170	106	1525266
Maharashtra	13738187	85.2	11704935	282	212	248	2033252
Eastern Region							
West Bengal	12250585	66.1	8097637	287	215	174	4152948
North Eastern Rg.	5334480	81.3	4336932	287	215	93	997548
Southern Region							
Andhra Pradesh	11648031	79.5	9260185	206	155	143	2387846
Karnataka	8761864	77.9	6825492	296	222	152	1936372
Kerala	5146328	98.6	5074279	533	400	203	72049
Tamil Nadu	9651262	87.7	8464157	313	235	199	1187105
India	162878130	71.4	116294985	317	238	2765	46583145

Sources: # Selected Educational Statistics, 1993-94, Ministry of Human Resource Development Department of Education.

* NCAER, India Human Development Report, A profile of Indian State in the 1990s.

Conclusions

About 58 per cent of the Indian population lives in lowest income group of upto Rs. 20,000 per annum with wide income variations within this group. More than half are very poor where expenditure on education is out of budget at the given price of education and income. Hence there are about 59 million out- of- schoolchildren in India. Financial constraints is the main reason for non-enrolment where about Rs. 6040.7 crores is spent by households towards elementary education in India. Households are forced to spend this amount due to the failure of the government to provide free education upto 14 years of age. Even if half of this expenditure is appropriated through community financing, all the children in the poorer sections will benefit. It is expected that the community will be able to cover out- of school children through better management of existing of expenditure.



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