

Educational Attainments and Well-Being

Background	48
Some Educational Indicators — Magnitude and Pattern	51
Literacy Rate	51
Adult Literacy	52
Enrolment in Schools	54
Policies, Interventions and Prospects	58
Summing Up	61

Education, in the present day context, is perhaps the single most important means for individuals to improve personal endowments, build capability levels, overcome constraints and, in the process, enlarge their available set of opportunities and choices for a sustained improvement in well-being. It is not only a means to enhance human capital, productivity and, hence, the compensation to labour, but it is equally important for enabling the process of acquisition, assimilation and communication of information and knowledge, all of which augments a person's quality of life. Education is important not merely as means to other ends, but it is an attribute that is valued in itself, by most individuals. More importantly, it is a critical invasive instrument for bringing about social, economic and political inclusion and a durable integration of people, particularly those 'excluded', from the mainstream of any society.

The process of education and attainments thereof has an impact on all aspects of life. It captures capability of acquiring knowledge, communication, and participation in community life. It alters an individual's and even community's collective perceptions, aspirations, goals as well as the ability and the means to attain them. The level and spread of education has not only been an important precondition for sustained economic growth, both in the

developed and the developing countries, but it has also played a critical facilitative role in the demographic, social and political transition of these societies. Creation, application and adaptation of new technologies; lower fertility, infant and child mortality rates; better nutritional, hygiene and health status of children, reproductive health and empowerment of women; social mobility and political freedom, all have visible linkages with educational attainments of people. It is, undoubtedly, a basic component of human development.



There is ample evidence to substantiate this claim. Improvements in educational attainments have invariably been accompanied by improvement in health and longevity of the population and in their economic well-being. Educated people are likely to be more productive and hence better off. They are also likely to contribute more to a country's economic growth. At the same time, education reinforces the socio-economic dynamics of a society towards equality in attainments and opportunities for its people. Though, the returns to education may vary across individuals, regions, level and nature of education, in general, they are significantly higher for poor developing areas than for the rich. Education is therefore, the best social investment, given the synergies and the positive externalities that it generates for people in their well-being. It is also a priority for countries seeking to develop and sustain their level and pace of development.

The UNDP in its HDR 1990, pointed out, and rightly so, that literacy is a person's first step in learning and knowledge building and, therefore, literacy indicators were essential for any measurement of human development. There can be many indicators such as literacy rate for population as a whole or a part of the population, including, those for adults, females, the deprived and the backward. Other indicators like enrolment, attendance and dropout rates of the school going children or the girl child; or the proportion of population having higher and technical qualification, etc. could also be used to capture the level of educational attainment in a society. Each of these indicators, however, focuses on a particular aspect of the education and, to that extent, captures only a limited dimension of educational attainment. For instance, adult literacy rate (that has frequently been used as an indicator to reflect educational development in human development indices) may measure only a superficial capacity to read and write one's name or a simple sentence and, hence, may not be a good indicator in itself for capturing educational attainment of a society, particularly when it is a result of mass adult literacy

Productivity Benefits from Education — Some Cross Country Evidence

In agriculture, for example, studies covering 31 countries concluded that if a farmer had completed four years of elementary education, his/her productivity was on an average, 8.5 per cent higher than that of a farmer who had no education at all. In case of India there is evidence that adoption and spread of 'green revolution', in the early years, was faster among the educated farmers. In industry, most evidence suggests that at enterprise level educated workers are more productive. More strikingly, the skill and knowledge intensive sectors have been the fastest growing service sector in India in recent years. A study for 88 countries for the period 1960-63 and 1970-73 found that an increase in literacy from 20 per cent to 30 per cent were associated with an increase in real GDP of between 8 and 16 per cent. Another study of 37 middle-income and 29 low-income countries indicated that a 1 per cent difference in the primary enrolment ratios was associated with 0.035 per cent difference in per capita income growth rates.

Education increases equality as well. A study of 49 countries showed that about a fifth of income-inequality could be explained by educational inequality. Another has shown that an increase in literacy rate from 10 to 60 per cent has been associated with a 2.8 per cent increase in the income share for the poorest 40 per cent of the population. At lower levels of development, in some cases, expanding education could possibly increase inequality, but with development, education does seem to generally have an income levelling effect.

The poor countries get much higher rates of return than the rich countries from investing in education. For the poorest countries, the highest returns are from primary education. For instance, in case of African countries the estimated rate of return on primary education was 26 per cent in comparison to 17 per cent for secondary education and 13 per cent for higher education.

In case of India, as per one study, the private rate of return per year of education increases as the level of education increases up to the secondary level. The returns to primary education were rather low and, in general, returns per year at secondary level were the highest. It was also seen that returns to women's education exceeded that of men at middle, secondary and higher secondary levels. Though, between 1983 and 1994, the returns to women's education for primary and middle levels declined, there has been an increase in returns for secondary and college levels during the same period. For rural areas, there were higher returns for primary and secondary levels as well as for technical diploma, whereas returns for higher secondary and college education were higher in urban areas.

Source Adapted from UNDP, Human Development Report, 1992, page 69; P Duraisamy (2000), Yale University: Centre Discussion Paper No. 815.

programme and not an outcome of a formal education system. Even in the case where adult literacy or, for that matter, literacy rate is a result of a formal education system, it is at best an indicator of stock of educational attainment for the society — reflecting the social effort for education over a number of years in the past — rather than a flow-variable, that captures the current spread of education. More importantly, it may not be a good indicator if one is looking at the qualitative dimension to an individual's or a society's educational attainment. In addition to such conceptual considerations, the choice of indicators could also be influenced by the context and social valuation reflective of a particular area, society or a country that may have to be incorporated in the process of identifying and selecting relevant indicators and in building the composite indices.

For a developing country like India, where literacy levels are comparatively low, where there are critical gaps in educational attainments across regions, population segments and, more importantly, there are significant returns to education — economic, social and political — to be reaped, it may be desirable to select educational indicators reflecting, for example, a social preference that lays greater value on acquiring literacy early on in an individual's life. Among other considerations, this would enable an individual and society to benefit for a longer duration from cumulation of spill-over effects of his/her educational attainments. Thus, indicators like literacy rate in the age group 7 years and above, or in the age group 7 to 18 years, could be preferred to adult literacy rate solely on this count. It may also be argued that for a society's development, in general, and for human development, in particular, the quality of education is as important as an individual becoming literate. If, in identifying an indicator this consideration has to be reflected, a distinction can be made between informal education and education imparted formally through structured curriculum at schools. Some other indicators that capture the qualitative aspects of education could include variables covering the quality of educational infrastructure, such as accessibility to schools, availability of sports and recreational facilities, school ambience and building, teaching equipments and instruction material. In addition, indicators like teacher-pupil ratio, public spending on education, frequency of undertaking training and review of curricula and teaching practices could also be used to capture the qualitative and quantitative aspects of educational development in the country.

Thus, there could be alternate indicators or combination of indicators that could be suggested to reflect some or most of these considerations in capturing the educational attainment in the country. Some of the indicators that were amenable from the point of the format adopted for this Report, as well as from the point of data availability have been discussed here. The data has been presented in the Statistical Appendix. From among these, it was felt that a combination of literacy rate for the age-group 7 years and above and the constructed variable — 'intensity of formal education' — based on school enrolment rates could be used to capture educational attainment in the HDI estimated for this Report. Together, these variables capture not only the stock and the flow aspect of learning and acquiring education, but they also reflect a certain qualitative aspect of the educational system and its importance for an individual's and a society's well-being. A similar set of variables, namely the illiteracy rates in the age group 7 years and above and the proportion of children not enrolled in school going age group are used to reflect the deprivation in educational attainment for use in the HPI.

Some Educational Indicators — Magnitude and Pattern

India's educational development is a mixed bag of remarkable successes and glaring gaps. In the post-independence period, the pace of educational development was unprecedented by any standards. At the same time, perhaps, the policy focus and public intervention in the provisioning of educational services was not adequately focused or, even misplaced, to the extent that even after 50 years of planned effort in the sector, nearly one-third of the population or close to 300 million persons in age-group 7 years and above are illiterate. There are critical gaps in the availability of infrastructural facilities and qualitative aspects of education including, teachers training, educational curricula, equipments and training materials, particularly, in the publicly funded schooling system of the country. The attainments, as also the failures have not been uniform across all regions. Though, the regional differences are indeed striking, there has been a significant reduction in inequalities in educational attainments across gender, population segments by castes, income levels and the rural-urban divide.

There has been significant reduction in inequalities in educational attainments across gender, population segments by castes, income level and between the rural-urban divide.

Literacy Rate

The Census of India, currently defines the literacy rate as proportion of literates to total population in age group 7 years and above. It was merely 18.3 per cent (for the age group 5 years and above) in 1951, 43.6 per cent in 1981 and is 65.2 per cent as per the Census 2001. In the decade 1991-2001 the number of illiterates declined, for the first time since the Census of 1951, by almost 32 million in absolute terms. There are, however, large inter-State variations in literacy rates in the country. At one end, proportion of literates was the highest in Kerala, at over 90 per cent, and at the other it was less than 50 per cent in Bihar for the year 2001. The regional variations in literacy rates have declined since 1981, though the disparities become more pronounced if one takes into account rural-urban differences or the differences between male and female literacy rates.

The literacy rate in rural areas increased from about 36 per cent in 1981 to 59 per cent in 2001. The corresponding rates in urban areas were about 67 and 80 per cent, respectively. Thus, rural-urban gap has declined from about 31 to 21 percentage points. During this period, literacy rate for males increased from about 56 per cent in 1981 to nearly 76 per cent in 2001. The corresponding change in female literacy rate has been from around 30 per cent to 54 per cent. On the whole, the decline in gender gap, which peaked in 1981 at 26.6 percentage points, and was 21.7 percentage points in 2001, is less impressive than the decline in rural-urban gap. For rural areas, gender gap declined from 28 to 24 percentage points, whereas in case of urban areas the decline was a little higher at 7 percentage points. The inter-State variations in literacy rate for males were much lower in comparison to females. Of the larger States, while Kerala is among the best performers in terms of literacy rate — both for males and females — Bihar continues to be at the bottom.

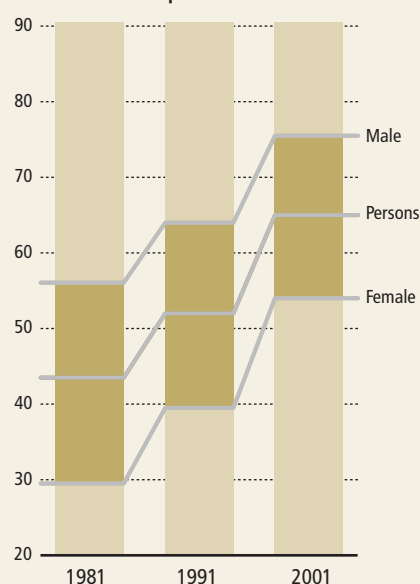
The literacy rate for Scheduled Castes and Scheduled Tribes population has been much lower than the rest of the population. As against the overall

literacy rate of 52.2 per cent in 1991, the literacy rate for Scheduled Castes and Scheduled Tribes was 37.4 per cent and 29.6 per cent, respectively. For others, the literacy rate was 57.7 per cent. Less than one-fourth of Scheduled Caste females and less than one female in every five among the Scheduled Tribes were literate. In case of Bihar less than 10 per cent of Scheduled Caste females and in case of Rajasthan less than 5 per cent of Scheduled Tribes females were literate in 1991. The situation was much worse in 1981, when only about 1 per cent of Scheduled Tribe females in Rajasthan were literate. At the other extreme, nearly three-fourths of the females from among Scheduled Caste population in Kerala were literate in 1991. The disparities in male and female literacy rate among Scheduled Castes and Scheduled Tribes were much higher than those for the rest of the population.

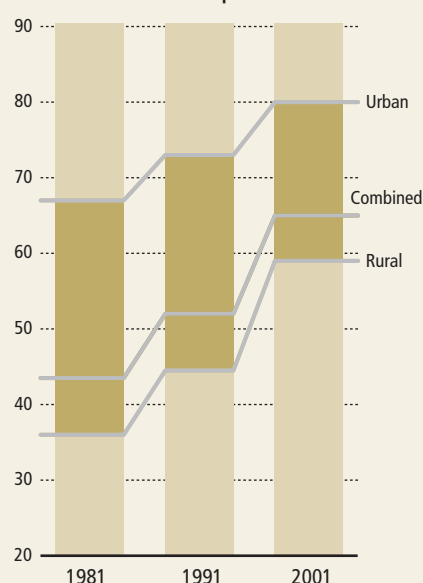
Notwithstanding the disparities in attainments on literacy across States, regions and population segments, there is a definite transition taking place in respect of literacy rates across States in India. For instance, in 1991, there were number of States with literacy rate less than 50 per cent, but in 2001, it is only in case of Bihar that literacy rate is less than 50 per cent.

Literacy Rate (Percentage)

Gender Gap



Rural-Urban Gap



Adult Literacy Rate

The adult literacy rate, in India is defined as the proportion of literate population in age group 15 years and above. Like literacy rate, adult literacy rate gives an indication of the stock of human capital in population. More particularly, it is a prevalence measure of education that reflects average social effort, in a society, over many years. Such a measure is relatively insensitive to current spread of education among children and underplays the importance of social investment in educating the young in a society. In addition, to the extent spread of adult education is significantly dependent on non-formal education system, adult literacy rate, in India, may not be a good indicator for capturing educational attainments of the population.

The proportion of adult literates in the population increased from about 41 per cent in 1981 to about 49 per cent in 1991. During this period, the increase in proportion of female adult literates was marginally more than that of males, thus, reducing gender disparity in adult literacy. For rural areas this ratio increased from 33 per cent to 40 per cent over this period. In case of urban areas, the increase was from 65 per cent to 71 per cent. As per the NSSO 54th Round (Jan-June 1998), adult literacy rate was 57 per cent for the country as a whole. It was 50 per cent for rural areas and 78 per cent for urban areas. The proportion of adult literates among females in urban areas of nearly 68 per cent was more than twice that of the ratio prevailing in rural areas. This difference in case of males was much less. The urban adult literacy rate for males was 86 per cent, whereas in case of rural areas it was 64 per cent. For a number of States, adult literacy rate for females in rural areas was 25 per cent or less. Among the larger States that fall in this category, include Bihar, Madhya Pradesh, Uttar Pradesh and Rajasthan. Overall, the States of Andhra Pradesh, Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh had an adult literacy rate of less than 50 per cent in the first half of 1998.

Enrolment in Schools

The enrolment of children in schools depicts the current flow or the spread of education. There are alternate measures that can be considered

The Literacy Transition of Indian States-Census 1991 and 2001

Literacy Rates	Males	Females	Persons
> 80%	Kerala, Lakshadweep, Mizoram, Pondicherry, Goa, Daman & Diu, Delhi, Maharashtra, Andaman & Nicobar Is., Himachal Pradesh, Chandigarh, Uttaranchal, Tamil Nadu, Tripura, Gujarat	Kerala, Lakshadweep, Mizoram	Kerala, Mizoram, Lakshadweep, Goa, Delhi, Chandigarh, Pondicherry, Andaman & Nicobar Is., Daman & Diu
2001			
1991	Kerala, Lakshadweep, Mizoram, Pondicherry, Goa, Daman & Diu, Delhi, Chandigarh	Kerala	Kerala, Mizoram, Lakshadweep
70-80%	Haryana, Manipur, Chattisgarh, West Bengal, Madhya Pradesh, Sikkim, Rajasthan, Karnataka, Orissa, Punjab, Dadra & Nagar Haveli, Assam, Nagaland, Andhra Pradesh, Uttar Pradesh	Chandigarh, Goa, Andaman & Nicobar Is., Delhi, Pondicherry, Daman & Diu	Maharashtra, Himachal Pradesh, Tripura, Tamil Nadu, Uttaranchal
2001			
1991	Gujarat, Himachal Pradesh, Maharashtra, Manipur, Tamil Nadu, Tripura, Andaman & Nicobar Is.	Lakshadweep, Mizoram, Chandigarh	Goa, Delhi, Chandigarh, Pondicherry, Andaman & Nicobar Is., Daman & Diu
60-70%	Jharkhand, Meghalaya, Jammu & Kashmir, Arunachal Pradesh, Bihar	Himachal Pradesh, Maharashtra, Tripura, Tamil Nadu, Punjab, Nagaland, Sikkim, Meghalaya, Uttaranchal, West Bengal	Gujarat, Punjab, Sikkim, West Bengal, Manipur, Haryana, Nagaland, Karnataka, Chattisgarh, Assam, Madhya Pradesh, Orissa, Meghalaya, Andhra Pradesh, Rajasthan, Dadra & Nagar Haveli
2001			
1991	Assam, Haryana, Karnataka, Nagaland, Orissa, Punjab, Sikkim, West Bengal	Goa, Andaman & Nicobar Is., Delhi, Pondicherry	Maharashtra, Himachal Pradesh, Tripura, Tamil Nadu, Gujarat, Nagaland
50-60%		Manipur, Gujarat, Karnataka, Haryana, Assam, Chattisgarh, Andhra Pradesh, Orissa, Madhya Pradesh	Uttar Pradesh, Arunachal Pradesh, Jammu & Kashmir, Jharkhand
2001			
1991	Andhra Pradesh, Arunachal Pradesh, Bihar, Madhya Pradesh, Meghalaya, Rajasthan, Uttar Pradesh, Dadra & Nagar Haveli	Himachal Pradesh, Maharashtra, Nagaland, Punjab, Tamil Nadu, Daman & Diu	Assam, Haryana, Karnataka, Manipur, Punjab, Sikkim, West Bengal
< 50%		Rajasthan, Arunachal Pradesh, Dadra & Nagar Haveli, Uttar Pradesh, Jammu & Kashmir, Jharkhand, Bihar	Bihar
2001			
1991		Sikkim, Meghalaya, West Bengal, Manipur, Gujarat, Karnataka, Haryana, Assam, Andhra Pradesh, Orissa, Madhya Pradesh, Rajasthan, Tripura, Arunachal Pradesh, Dadra & Nagar Haveli, Uttar Pradesh, Bihar	Bihar, Uttar Pradesh, Arunachal Pradesh, Madhya Pradesh, Orissa, Meghalaya, Andhra Pradesh, Rajasthan, Dadra & Nagar Haveli.

while analysing enrolment of children in schools. Among the more commonly used measures, gross enrolment ratio, age-specific enrolment ratio, net enrolment ratio, dropout rates and school attendance rates, are relevant for capturing the flow aspect of the educational attainment of the population.

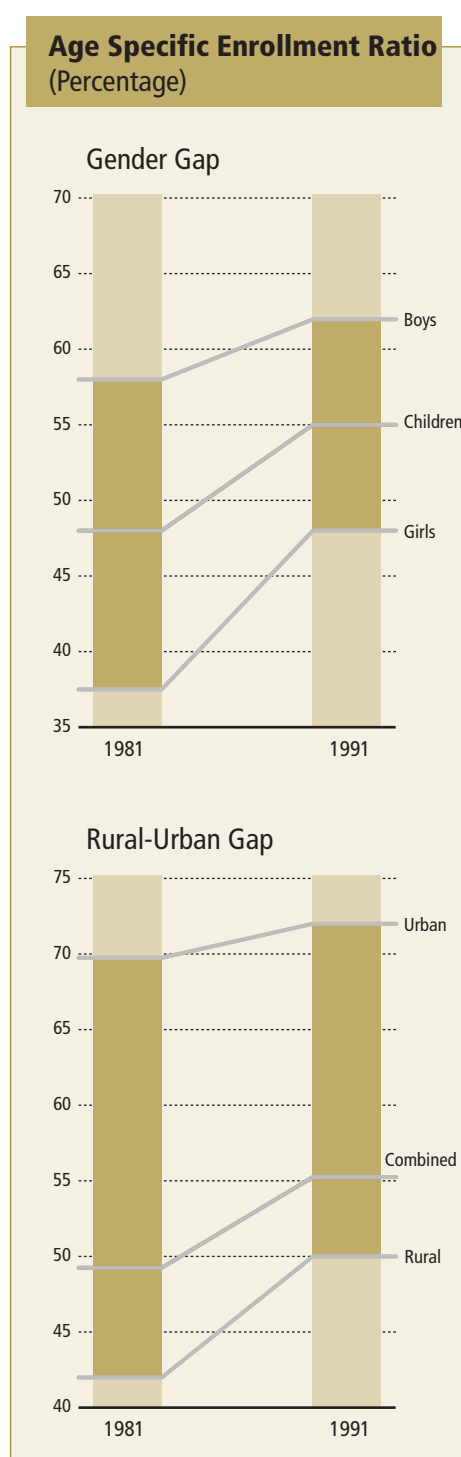
Gross Enrolment Ratio refers to enrolment at a specified level of schooling, irrespective of the age of student enrolled, to the population of children in the age group expected to be at that level of schooling as per prevalent norms on school enrolments. Thus, for instance, gross enrolment ratio at primary school level, i.e. for classes I to V, would be the percentage of children in classes I to V to total number of children in age group 6 to 11 years. This ratio is indicative of the general level of participation at a given school level. It captures, to some extent, accessibility and capacity of the education system to enroll students. The ratio, often, exceeds 100 per cent due to inclusion of over-age, under-age, as well as repeat students for the concerned class.

The gross enrolment ratio in classes I-V was 94.9 per cent in 1999-2000 as per the Annual Report of the Ministry of Human Resource Development. In case of many States this ratio exceeded 100 per cent, more so in case of boys. It declined to 58.8 per cent for children in classes VI-VIII. A lower ratio in the latter years as compared to earlier years is not only on account of lower enrolments or higher drop out rates but possibly also on account of there being a large number of students in age group other than 6-11 years in classes I-V and at the same time there being a greater proportion of students of the specified age group in classes VI-VIII.

Age Specific Enrolment Ratio refers to percentage of children enrolled in a particular age group, irrespective of the level/class of enrolment, to the total population of children in that age group. Like gross enrolment rate, a higher ratio on this measure implies a higher educational participation. However, it suffers from a limitation that it does not give the schooling level/class at which the students are enrolled.

The age-specific enrolment ratio for age group 6-14 years registered an increase from 48.3 per cent in 1981 to 55.3 per cent in 1991 as per the Census figures. For rural areas, it increased from 42.2 to 49.9 per cent while for urban areas the corresponding ratios were 69.7 and 72 per cent respectively. The ratio for boys increased from 58 per cent in 1981 to 62.1 per cent in 1991. For girls, the ratio increased from 37.8 per cent in 1981 to 47.9 per cent in 1991. Thus, the rural-urban gap, as well as gender gap declined during the period 1981 to 1991. A break up of age group 6-14 years into 6-10 years and 11-14 years shows that age-specific enrolment ratio is significantly lower in age group 6-10 years than in age group 11-14 years in 1991, as well as in 1981. Much of this difference in age-specific enrolment between the two age groups disappears, if one drops enrolment ratio of children at age 6 years, which is considerably lower vis-à-vis other age groups in both rural and urban areas. At State level, age-specific enrolment ratio in age group 6-14 years was low at close to 40 per cent in Bihar, Rajasthan and Uttar Pradesh and was over 70 per cent in Kerala, Himachal Pradesh and Maharashtra, as well as in a number of smaller States and Union Territories. The ratio was lower in rural areas, more so for girls, and with large inter-State differences. In urban areas, the inter-State differences, as well as gender differences were much lower.

There are some other sources of data on age-specific enrolment ratios. According to the All-India Educational Surveys conducted by the National



Council of Educational Research and Training (NCERT) this ratio for age group 6-14 years was 63.2 per cent in 1993 as against 56 per cent in 1978. While the ratio increased marginally from 64.1 per cent in 1978 to 66.4 per cent in 1993 for age group 6 to below 11 years, the increase in age group 11 to 14 years was quite significant from 41.7 to 57.1 per cent, during this period. There are, however, certain inconsistencies between the age-specific enrolment ratios derived from the Census and that reported in the Educational Surveys. The Census data shows that this ratio is higher for age group 11-14 years as compared to age group 6-10 years in the year 1991, unlike the estimates derived for these age groups, from the Educational Surveys for the year 1993. Also, for a number of States age-specific enrolment ratio is lower in 1993 as compared to 1978 as per the Educational survey. The 52nd Round of NSSO gives age-specific enrolment ratios for the year 1995-96 for age groups 6-10 years and 11-13 years. It has estimated the ratio at 69 per cent for age group 6-10 years and 72 per cent for age group 11-13 years. A study based on survey conducted by the National Council for Applied Economic Research, reports enrolment rates according to income classes for rural areas. According to this survey, 67 per cent of children in age group 6-14 years were enrolled in schools. The ratio was 60.6 per cent for those belonging to households with annual income less than Rs.20,000. It was 84.4 per cent for those with household income of over Rs.62,000. This gave an income gap of 1.39. The income gap is defined as ratio of enrolment rates in the highest to the lowest income categories. At the State level the survey shows not only lower enrolments in Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh across all income classes but a generally higher income gap in these States than in Kerala, Himachal Pradesh, Punjab, and Maharashtra.

Net Enrolment Ratio refers to proportion of the population, of a particular age group, enrolled at a specific level of schooling, to the total population in that age group. The ratio overcomes the shortcoming of both gross enrolment ratio and age-specific enrolment ratio, as it captures age-specific enrolment of students in the classes they ought to be as per the prevailing norms for school enrolments. It is well known that students who start early or late, as per the prevalent school enrolment norms, constitute a large proportion of the total enrolment in schools in the developing countries. In some countries information on the actual age of a child, particularly in rural areas is also, often, not available or is inaccurate. In such circumstances the use of net enrolment ratio as an indicator for school enrolments may not be reliable.

Information on net enrolment ratio is available from two sources namely, the Sixth All-India Educational Survey with 30th September, 1993 as the date of reference and the 52nd Round of the NSSO for the year 1995-96. As per the Educational survey, net enrolment ratio for children in age group 6 to below 14 years was 57.5 per cent. In other words, of the children in age group 6 to below 14 years, 57.5 per cent were enrolled in classes I-VIII. The ratio was 64 per cent for boys and 50.4 per cent for girls. The ratio was 62.2 per cent for children in age group 6 to below 11 years and 44.8 per cent for ages 11 to below 14 years. However, at State level net enrolment ratio for boys in age group 6 to below 11 years in Kerala was seen to be lower than or close to that prevailing in a number of States like Assam, Bihar, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Orissa and Tamil Nadu. This is surprising, given the educational attainments in the State of Kerala. The NSSO data for 1995-96 gives a net enrolment ratio of 66 per cent for

Only when enrolled students are retained over successive classes the indicator on enrolment becomes useful for capturing educational progress of a society.

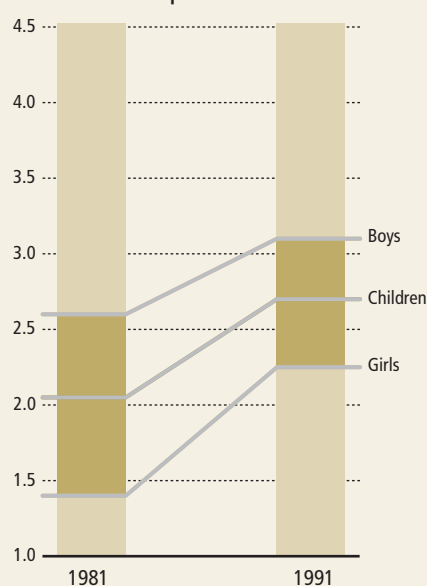
classes I-V and 43 per cent for classes VI-VIII. In rural areas this ratio was 63 and 39 per cent, respectively, for these classes. The corresponding ratios for urban areas were higher at 78 per cent for classes I-V and 58 per cent for classes VI-VIII. Moreover, while gender gap in the ratios for rural areas was significant, more so for classes VI-VIII, it was not so in urban areas. At State level, for classes I-V the ratio was significantly lower than the national average for Bihar, Rajasthan and Uttar Pradesh. Apart from these three States, for classes VI-VIII, the ratio was also lower than the national average in the States of Madhya Pradesh and West Bengal.

Drop Out Rate is the percentage of students dropping out of a class/classes in a given year. Along with students repeating a class, the drop out rate gives an indication about the wastage of school education and tends to undermine benefits of increased enrolments. Indicators such as drop out rate or school attendance rates can therefore, qualitatively supplement the use of enrolment indicators, such as the one discussed here, to capture the flow aspect of educational attainment in any context. Though, the drop out rate at national level for India has been declining, there is considerable regional disparity in the magnitude. As per the latest estimates available from the Ministry of Human Resource Development, of students enrolled in classes I-V, over 40 per cent dropped out in 1999-00, as against 58.7 per cent in 1980-81 and 65 per cent in 1960-61. Similarly, nearly 55 per cent of students enrolled in classes I-VIII dropped out in 1999-00 as against nearly 73 per cent in 1980-81 and 78 per cent in 1960-61. The drop out rate has been higher for girls. It was 42.3 per cent for classes I-V and 58 per cent for classes I-VIII in 1999-00 as against 62.5 per cent and 79.4 per cent, respectively, in 1980-81. At State level, the drop out rate has been quite high in Bihar, Jammu-Kashmir, Orissa, Rajasthan, UP, West Bengal and most of the States in North East for classes I-V and in Andhra Pradesh, Assam, Bihar, Gujarat, Karnataka, Orissa and West Bengal, apart from the North Eastern States for classes I-VIII in 1999-00. The drop out rate in classes I-X was over 68 per cent for the country.

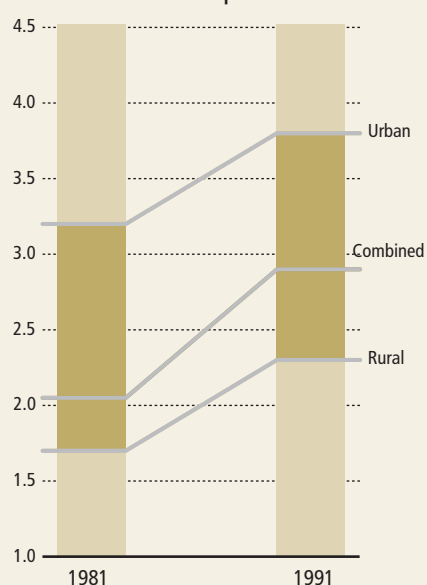
A NSSO survey for the year 1995-96 showed that drop out rate increases cumulatively with level of education. It was estimated that of the ever enrolled persons in the age group 5-24 years 21 per cent dropped out before completing primary levels. Half the children dropped out attaining middle level, over three-fourths dropped out before attaining secondary levels and 9 out of ten persons ever enrolled could not complete schooling. The drop out rate was least for those belonging to the highest expenditure class and maximum for those from the lowest expenditure class. The survey also found that the ratio of those dropping out by secondary school level to those dropping out by primary level was the least in the lowest class, increasing with every quintile and was maximum for the highest quintile. This implies that children from poorer sections of the society drop out in the early stages of education, while those from the better off sections drop out at later stages. Among reasons for dropping out from schools, it was found that one-third of the drop outs were because either the children or their parents were not interested and nearly as many were on account of economic considerations, such as the compulsion to work for wages or looking after younger siblings. About 26 per cent cited, school and teaching curricula related factors such as unfriendly atmosphere in schools, doubts about the usefulness of schooling and inability to cope with studies as reasons for their dropping out. Among girls in rural areas, these factors accounted for over 75

Adjusted Intensity of Formal Education (Years)

Gender Gap



Rural-Urban Gap



per cent of the dropouts. Similar findings were reported in the 'PROBE' report. They found that of the boys who dropped out, 35 per cent did not want to continue and 47 per cent were withdrawn from schools by parents who cited factors such as schooling being too expensive, requirement of children in other activities and poor teaching standards as the main reasons for their decision. The corresponding proportions for girls were 16 and 66 per cent respectively.

With such a magnitude of drop out rates and, often, poor attendance rates in some schools as well, the use of school enrolment rates as indicators to capture the flow or spread of education in the country may not be accurate in capturing the current educational attainment of people. A child may be reported as enrolled in a certain class, but he/she may not attend school on a regular basis and in some cases when attending may be dropping out before the end of the year. It is only when the enrolled students are retained over successive classes that the indicator on enrolment becomes useful from the point of capturing the current educational progress of a society. It is this concern that makes it necessary to look at indicators like the 'mean year of schooling' or for that matter the indicator 'intensity of formal education' that has been specifically constructed for use in this Report.

The indicator **Intensity of Formal Education** is based on class-wise enrolment rates and it attempts to capture current progress in spread of formal education among school going children. This indicator not only values education in early years of an individual's life (as it looks at children in the school going age-group) but it lays importance on a structured formal system of education (unlike non-formal education as is generally the case with adult literacy) and, more importantly, weighs progressively the capacity of the education system to retain enrolled students over successive classes from class I to XII. As a result, it implicitly takes care of the drop out rates across all classes. In constructing this indicator, a weighted average of the share of class-wise enrolment in the total enrolment in classes I-XII is taken, the weights increasing over successive classes from 1 to 12. This is then adjusted by the gross enrolment ratio for the population of children in age group 6-18 years, to correct for the children in the school going age group who are not enrolled. The indicator so estimated, namely the **Adjusted Intensity of Formal Education**, has a higher value for States that are able to have higher level of enrolments in higher classes or in other words are able to retain children in schools for a longer duration without dropping out and at the same time have a larger proportion of children, of school going age-group, enrolled in schools.

For a State that is indifferent to enrolments or to children dropping out early, or in other words, those having large number of children outside the schooling stream, the magnitude of the indicator — intensity of formal education — may give an erroneous picture, as it ignores the children who are not enrolled. It, therefore, becomes necessary to adjust it for gross enrolment ratio and estimate the adjusted intensity of formal education. In making this adjustment, importance is placed on school enrolments — irrespective of whether it is early or delayed from the point of prevalent norms on age-specific enrolments — and at the same time, the capacity of the system to retain those who are enrolled over successive classes.

At national level, the intensity of formal education was 4.03 years for students enrolled in 1978. It increased to 4.64 years in 1993. For both the years it was lower for girls in comparison to boys. For boys, it increased from

'Intensity of Formal Education' values education in early years of an individual's life; structured formal system of education; and weighs progressively the capacity of the system to retain enrolled students over successive classes.

4.19 years in 1978 to 4.77 years in 1993, while for girls it increased from 3.76 years to 4.46 years. Thus, during this period gender gap declined from 0.43 to 0.31 years. In rural areas this decline was modest from 0.56 to 0.42 years, whereas in urban areas it was proportionately more from 0.48 to 0.27 years. The rural-urban difference was significant in both years at 1.33 and 1.26 years, respectively. In other words, intensity of formal education in 1978 for rural areas was about 73 per cent of urban areas rising marginally to about 77 per cent in 1993. The adjusted intensity of formal education, at national level, was estimated at 2.04 years in 1978 and 2.70 years in 1993. For boys, it increased from 2.61 to 3.10 years and for girls, the increase was from 1.42 to 2.26 years. Between the two years, while gender gap declined from 1.19 to 0.84 years, rural-urban difference remained stagnant at 1.5 years. In 1978 it was 1.68 and 3.20 years for rural and urban areas, respectively and in 1993 the corresponding figures were 2.31 and 3.81 years.

The unadjusted, as well as adjusted intensity of formal education vary significantly across States. In 1993, among the major States, the former varied between 3.97 years for Bihar to 5.44 years for Kerala. However, the range for adjusted indicator increased from 1.69 years for Bihar to 3.94 years for Kerala and 4.3 years for Himachal Pradesh. This was on account of there being a larger proportion of children in age group 6-18 years not enrolled in schools in Bihar unlike in Kerala or Himachal Pradesh.

Polices, Interventions and Prospects

In India, the responsibility of educational development and spread of literacy rests largely with State Governments. The Central Government has also been taking initiatives, under its Constitutional obligations, to supplement the efforts of State Governments by meeting some critical gaps in public provisioning for literacy improvement, particularly in the educationally backward States. These efforts have taken the shape of an enabling policy framework — for instance, the National Education Policy 1986, and the more recent step of introducing the bill for making primary education compulsory in the Parliament, as well as specific programmes including the Total Literacy Campaign, District Primary Education Programme (DPEP), *Mahila Samakhya* or the present initiative on *Sarva Shiksha Abhiyan* embodying some of these past programmes.

In the nineties, there has been a visible improvement in educational attainment of people in some States. It is encouraging to see States that were so far considered educationally backward making significant progress in their literacy levels. As per the Census 2001 Rajasthan, Madhya Pradesh and Andhra Pradesh followed by Orissa and Uttar Pradesh have made unprecedented improvements in raising their respective literacy rates. The increase in literacy rate of Rajasthan and Madhya Pradesh is by more than 20 percentage points in 2001 vis-à-vis 1991 as against an increase of 12 percentage points at the national level. The performance of these States along with that of Himachal Pradesh, Tamil Nadu, Punjab and some North Eastern States shows that no unique 'education model' explains the results in each of these States. There are, however, some elements common in the strategy for improving literacy level in most of these States.

Improving accessibility of children, in school going age group, to schools and increasing enrolment rates have been backed in some cases by visible measures to improve qualitative aspect of schooling. This has led to improvements in student retention rates (i.e., decline in drop out rates) in schools and, hence, better performance on educational indicators. For instance, though the proportion of children with access to primary school — within the habitation or within a distance of half a kilometre — remained the same during the Educational Surveys of 1978 and 1993, this proportion in case of access to upper primary schools (middle schools) — up to a distance of one kilometre — increased by more than 10 percentage points from 46.6 per cent in 1978 to 56.9 per cent in 1993 at national level. The proportions for States like Uttar Pradesh, Bihar and Madhya Pradesh were considerably lower than for Andhra Pradesh, Gujarat, Haryana, Punjab, Tamil Nadu, Kerala and Maharashtra. At the same time, over this period, despite changing demographic profile and pace of population growth, availability of schools for school going population has not undergone much change. There were 5.7 primary schools per thousand school going children in age group 6-11 years in 1982-83 as against 5.04 schools in 1997-98. This marginal decline was some what made up by improved availability of middle schools from 2.44 schools per thousand children in 1982-83 to 2.75 schools in 1997-98. A number of primary schools may have been upgraded to middle schools during this period, partly accounting for the decline in availability of primary schools. For Madhya Pradesh, as well as Rajasthan the availability of middle schools, in particular, has shown significant improvement in the nineties.

A similar trend was noticeable in case of 'teacher-pupil ratio' — an indicator having a bearing on quality of education and, hence, on retention of enrolled children in schools. The ratio refers to number of students enrolled for every teacher appointed. This ratio has not changed significantly in the fifteen years between 1982-83 and 1997-98. During this period it increased from 40 to 42 students in primary classes, from 34 to 37 students in middle classes and remained same at 29 students per teacher for secondary classes. Thus, at the national level, the appointment of teachers kept pace with increasing enrolment in schools. At State level, there are no clear trends

Constitutional and Legal Framework for Educational Development in India

Several articles in the Constitution of India outline the general principles for guiding and governing the educational development in the country.

- Article 45 of the Constitution enjoins that the State shall endeavour to provide, within a period of 10 years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of 14 years. This Constitutional obligation has been time and again deferred successively to 1970, 1980, 1990 and then to 2000. The Approach to the Tenth Five Year Plan (2002-07) has set the target of all children completing five years of schooling by 2007.
- Article 29(1) provides that any section of the citizens, residing in the territory of India and any part thereof, having a distinct language, script or culture of its own shall have the right to conserve the same.
- Article 29(2) lays down that no citizen shall be denied admission to any educational institution maintained by the State or receiving aid out of State funds on grounds only of religion, race, caste, language or any of them.
- Article 31 enjoins that all minorities, whether based on religion or language shall have the right to establish and administer educational institutions of their choice.
- Article 32 lays down that the State shall not, in granting aid to educational institutions, discriminate against any educational institution on the ground that it is under the management of a minority, whether based on religion or language.
- Article 350-A lays down that it shall be the endeavour of every State and of every local authority within the State to provide adequate facilities for instruction in the mother tongue at the primary stage of education to children belonging to linguistic minority groups.
- Under Article 46 the State is obliged to promote with special care the educational and economic interests of the weaker sections of the people and, in particular, of the Scheduled Castes and the Scheduled Tribes and shall protect them from social injustice and all forms of exploitation.

because of year-to-year fluctuations. However, in most educationally backward States these ratios have either remained same or they have improved in the nineties except in case of Bihar and to some extent in West Bengal where there is a consistent and significant deterioration over the years.

Public support by way of allocation of resources for creation and maintenance of education infrastructure has a direct bearing on some of these indicators. Over the period 1980-81 to 1998-99 'education expenditure ratio', i.e., the percentage of public expenditure on education to the total public expenditure has increased consistently at both Central and State level (Statistical Appendix Tables 7.5 to 7.8). In case of the former, the ratio increased from 2.7 to 3.9 between 1980-81 and 1998-99. Together for all the States, (for which the data has been presented) the Education Expenditure Ratio increased from 13.89 in 1980-81 to 17.36 in 1991 and further to 17.39 in 1998-99. In the 1990s, this ratio increased considerably in Rajasthan, Orissa and also in Bihar but declined significantly in Andhra Pradesh, Kerala and West Bengal. The ratio of public spending on education to Gross State Domestic Product at State level in the period 1990-91 to 1998-99 showed no clear trends. It was mostly between 2.5 per cent to a little over 3 per cent

with some smaller North Eastern States touching even 8 to 10 per cent. Interestingly, it was 4.53 and 4.02 per cent for Bihar in 1990-91 and 1998-99, respectively, when the performance of the State on literacy rate, as well as on the adjusted intensity of formal education was much below the national level.

The increase in share of public expenditure on education to total public expenditure has also been mirrored in the growth in private expenditure on education. In the last two decades, as per the National Accounts Statistics for India, the share of private expenditure on educational services to the total private consumption expenditure increased from around 2.5 per cent, in the early eighties to over 3.5 per cent in the late nineties. An aspect of this is reflected in the growing presence of private and missionary schools from the kindergarten level to the vocational and professional colleges throughout the country. They have become important in bridging the gap between the demand and the supply of quality education in the society. In many instances, they are a result of specific demands of the market, for instance, institutions imparting computer

***Sarva Shiksha Abhiyan* — A Programme for Universal Elementary Education**

The *Sarva Shiksha Abhiyan* is a time-bound initiative of the Central Government, in partnership with the States, the local governments and the community, to provide elementary education to all children in the age group 6-14 years by 2010. It recognises the importance of community owned system organised in a mission mode for improving reach and performance of the school system. In particular, its objectives are:

- All children in school, Education Guarantee Centre, Alternate School, 'Back to School' Camp by 2003;
- All children to complete five years of primary schooling by 2007;
- All children to complete eight years schooling by 2010;
- Focus on quality elementary education with emphasis on education for life;
- To bridge all gender and social category gaps at primary stage by 2007 and at elementary education level by 2010; and
- Universal retention by 2010.

The *Sarva Shiksha Abhiyan* seeks to bring about convergence of existing institutional effort for elementary education at State and district level. The Programme seeks functional decentralisation right down to the school level in order to improve community participation. Besides involving the *Panchayati Raj* Institutions/Tribal Councils in Schedule Areas, the States would be encouraged to strengthen the accountability in implementation of the Programme by involving NGOs, teachers, activists and women's organisations. The Programme would cover the entire country before March, 2002. The duration of the Programme in every district will depend on the District Elementary Education Plan reflecting the specific needs of each district.

According to broad assessments made by the Department of Elementary Education and Literacy, Government of India, nearly Rs.60,000 Crore additional budgetary resources are required from the Central and the State Governments over the next ten years for implementing this initiative. The actual requirement of funds is to be worked out when the District Elementary Education Plans are finalised.

literacy and skills. The issue that is increasingly becoming important, in this context, is the need to have sensitive and progressive regulatory framework for maintaining and improving educational standards, ensuring consumer protection, as well as making such institutions an integral part of the educational system in the country.

An important feature of the strategy in States that have made rapid strides in raising their literacy rates, apart from improved enrolment rates of children in school going age group, relates to the success in bringing down their drop out rates. States like Rajasthan, Madhya Pradesh, Haryana, Tamil Nadu, Punjab and Maharashtra have been able to bring down their drop out rates significantly. In case of Andhra Pradesh, Bihar, West Bengal and Uttar Pradesh these rates have, however, stagnated. In some States, the involvement of *Panchayati Raj* Institutions in the management of local schools at primary and upper primary levels and schemes aimed at providing nutritional supplements in the schools, such as the mid-day meal scheme particularly in case of Tamil Nadu, have also contributed in improving enrolments and retention in schools. Innovative changes in curriculum, including exposure to vocational training; flexibility in scheduling of school terms, particularly in rural areas, keeping in view the requirement of large segment of children who are, invariably, drafted to meet seasonal demand for labour in agriculture sector; and evening/night schools in urban areas have been seen to be helpful in improving enrolments and retaining children in schools for longer duration.

An aspect of the current policy focus in education that has a bearing on the future prospects of educational attainment for the society at large relates to the education of the girl child. Though, the Approach to the Tenth Plan aims at bringing down gender gap in literacy by 50 per cent over the plan period, the target seems ambitious, unless significant headway is made in States like Bihar, Uttar Pradesh, Rajasthan, Orissa and Haryana. Initiatives like the *Mahila Samakhya* that focus on creating a greater access to education, generate demand for education, build capacities and strengthen women's abilities to effectively participate in village level processes for educational development have to be pursued vigorously in these States having significant differential in male-female literacy rates.

***Mahila Samakhya* — Education for Women's Equality**

The *Mahila Samakhya* Project was initiated in 1987-89 for education and empowerment of women in rural areas, particularly of women from socially and economically marginalised groups. The programme recognises the centrality of education in empowering women to achieve equality and endeavours to create an environment for women to learn at their own pace, set their own priorities and seek knowledge and information to make informed choices. This involves enabling women to address and deal with problems of isolation and lack of self-confidence, oppressive social customs, struggle for survival, all of which inhibit their learning. The initiative focus on enabling a greater access to education, generating a demand for education, build capacities and strengthen women's abilities to effectively participate in village level processes for educational development.

Summing Up

To sum up, the policy for universalisation of elementary education has to focus on a universal access and enrolment; universal retention of children up to 14 years of age; and policy framework for bringing about substantial improvement in the quality of education including — improvement in

Towards a Fundamental Right to Free and Compulsory Education

The Constitution of India envisages provision for free and compulsory education for children. The Central Government has recently introduced the Constitutional 93rd Amendment Bill 2001 for enacting the fundamental right to free and compulsory education for the children in the age group 6-14 years. Till this initiative there was no Central Act on compulsory education, though, 14 States and 4 Union Territories had passed Acts making elementary education compulsory either in their entire State or in certain notified areas. These States are Assam, Andhra Pradesh, Bihar, Gujarat, Haryana, Jammu & Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu, Kerala and West Bengal. The Union Territories that have also enacted Acts on compulsory elementary education include Chandigarh, Delhi, Pondicherry and Andaman & Nicobar Islands.

The Compulsory Education Act where enacted in the States and Union Territories has largely remained un-enforced, perhaps, due to socio-economic compulsions. At the same time, some North Eastern States and Himachal Pradesh, in particular, have made rapid strides in improving their literacy rates without having the support of such an Act. All State Governments have, however, abolished tuition fees in Government schools up to upper primary level. Education in schools run by local bodies and private aided institutions is also mostly free. Other costs of education such as text books, uniforms, school bags, transport fees, etc. are not borne by States except in a few cases by way of incentives for children from poor and deprived segments of population including in some cases for the girl child.

educational infrastructure, standardisation and regular review of curricula, improvement in teaching aids, practices and training — to enable children to achieve essential levels of learning. To the extent that the legislative support helps in bringing these elements of the educational strategy into a sharper public focus, the initiation of the process for enactment of a Central law making elementary education compulsory is a step in the right direction. More specifically, the importance of having a law is based on the assumption and a hope that it would result in adequate provisioning of public resources for improving accessibility of children to schools, increase resource availability and policy focus for qualitative upgradation in the level and content of education and mitigating costs of school attendance. This could increase school enrolments and retention

over successive classes by acting as a deterrent to parents from premature withdrawal of their children from schools, as well as motivate the social interest groups and administrative machinery to encourage children to attend schools. Above all, the legislation is seen as an enabling framework for bringing about attitudinal changes — the attitude of parents towards their children's education, the States attitude towards children not in school and towards improving the quality of educational system.