#### ATLMRI DISCUSSION PAPER

Educational Attainment of Youth and Implications for Indian Labour Market *An Exploration Through Data* 





### TATA INSTITUTE OF SOCIAL SCIENCES, MUMBAI

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## **Discussion Paper No. 6/2007**

## Educational Attainment of Youth and Implications for Indian Labour Market

An Exploration through Data

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#### Summary

The link between education and labour market has a profound intellectual lineage, spanning across schools. An integrating view shared by these perspectives is the significance of the education as a pivotal criterion to participate in the labour market. This paper, by plotting the distribution of education level for the age group of 15-34, identified five categories of districts in India. These categories lie within a range, one extreme represented by asymmetric distributions which are characterised by low educational attainment while the other end has symmetric distributions featuring high educational attainment. Our analysis, based on district level data taken from Census 2001, paints a picture of contrast, existing among districts, in educational attainment. Moreover, this contrast, as revealed by data, has clear reflections in the participation of labour market. Taking cues from our findings, we doubt the view that enormity of youth in Indian population indicates demographic dividend. On the contrary, what appears from the data shows why the view of demographic dividend remains a mirage? We linked educational attainment with the indicators of inputs to the schooling, by scripting a case of contrast between Bihar and Kerala. It appears that the contrast in educational attainment has a direct link with inputs to schooling. Further, the contrast in educational attainment has obvious implications for the labour market. A labour force with low educational attainment is likely to have a few occupations to choose, compared to relatively higher diversity of occupations available to a labour force with higher educational attainment. Undoubtedly, the role of educational attainment is pivotal in an economy which pursues the path of inclusive growth.

#### Introduction

This paper assesses the level of education in India. The purpose is to examine the level of education that the young people (age group of 15 to 34) in India have attained. In most cases, we will use district as the unit of analysis. This is because the more disaggregated the analysis is the more effective will be the intervention strategies. The analytical plan is to examine the pattern of level of education across all districts in India. We will make an attempt to describe the pattern and explore its implications for Indian labour market. We adopt the following approach: we classify the districts holding illiteracy rate as the basic category. We examine whether similar illiteracy levels produce similar patterns of levels of education. Then, by identifying pattern of percentage distribution<sup>1</sup> of level of education, we classify the districts into five major categories.

The paper is organised into four sections. In first section, paper describes major theoretical perspectives, including human capital theory and sociological perspective of modernity, which show the link between education and progress of socio-economic system. Second section presents data on the levels of education at national level, disaggregating it for social and geographical groups. Moreover, this section presents data by classifying districts holding illiteracy as the basic category. Taking cues from the distribution of level of education, we discuss the link between educational attainment and education. Third section describes the contrast between Bihar and Kerala, giving a comparison of inputs to schooling, and the basic characteristics of labour market. This is followed by a concluding section.

<sup>&</sup>lt;sup>1</sup> Percentage distribution refers to respective percentage of particular level of education.

### **Section 1: Theoretical Perspectives**

#### 1.1. Human Capital

Human capital is a multi dimensional concept, involving variables such as education, earnings from work, work experience, health and so on. It is important to note that human capital is a scholastic lineage, investigating two major issues: (a) Sources of human capital formation (b) Role of human capital in economic growth. Two authors, Theodore Schultz and Gary S Becker, have made tremendous contribution to the lineage of human capital theory, especially by generating the perspective 'it is worth investing in human'. Schultz (1961) and Becker (1962) identify major sources of human capital (Table 1).

Table 1:	Sources	of Human	Capital
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Schultz (1961)	Becker (1962)
a. Health facilities and services	a. On the job Training
b. On the job training	b. Schooling
c. Formally organised education at the elementary, secondary, and higher	c. Other knowledge (For example information about job market)
levels	d. Productive wage increases
d. Study program for adults	
e. Migration of individuals and	
families to adjust to changing job	
opportunities	

In this paper, human capital, for the age group of 15-34 in India, using district as a unit of analysis, is assessed by the data on the distribution of population according to education level, starting from illiteracy to graduation and above. A pertinent issue which arises here is to what extent education represents human capital. Schultz (1961) provides an interesting cue: "Except for education, not much is known about these activities that is germane here" (p. 9). If education represents human capital, this correspondence has implications like direct relation between education and wage level. It is interesting to note wage level increases with level of education (Table 2)

	Rural	Urban
Not Literate	60.42	77.34
Literate and up to primary	91.23	105.16
Secondary and Higher	148.39	178.29
Secondary		
<b>Diploma and Certificate</b>	211.13	267.11
Graduate and above	253.19	344.14
All	133.18	193.73

Table 2:Average wage/Salary earning (in rupees) per day received by employees<br/>of age 15-59

**Source:** NSS 61<sup>st</sup> Round Report No 517- Status of Education and Vocational Training in India 2004-05

At micro level, for instance a firm, assessing human capital involves fitting the relation between age and income (Lev and Schwartz, 1971). Here, human capital is measured as net present value of earning. The curve representing the relation between age and income is sensitive to education, upper lying curve for higher level of education and lower lying curve for lower level of education. In other words, individuals with same but with varying level of education are likely to be on different curves, those with higher level of education on upper lying curve and those with lower level of education on low lying curves (Figure 1). Quite interestingly, human capital assessment became popular among firms<sup>2</sup>. They calculate human capital using Lev and Schwartz model (1971) (see Box 1). However, in this paper we focus on level of education.

Figure 1: Human Capital: Income, Age, and Education



<sup>&</sup>lt;sup>2</sup> For instance, Infosys, an India based information technology (IT) company, publishes human capital value annually. There are many more examples, from both IT and non IT.

#### Box 1: Example for Human Capital Valuation

Here we demonstrate how is human capital of an employee is measured by a firm using Lev & Schwartz (1971). In this example, the firm, an information technology company, provides training to new recruits. The firm estimates five year as average duration of employee in the firm, considering shortage of talent supply and competition for experienced manpower. Annual earning of employee grows at 20 %. The firm uses its cost of capital as r. Here, r is 10%. Following table gives training costs and earning.

Year	Earning (Indian Rupees)	Training Cost incurred by firm
1	650000	500000
2	780000	
3	936000	
4	1123200	
5	1347840	

Net Present Value = (-)  $500,000 + \frac{650000}{(1+r)} + \frac{780000}{(1+r)^2} + \frac{936000}{(1+r)^3} + \frac{1123200}{(1+r)^4} + \frac{1347840}{(1+r)^5}$ Assuming r = 0.1 (i.e. 10 %), Net Present Value = (-) 500000 + 3542831 = 3042831Value of Human Capital of employee in our case is Rupees 3042831.

As regards the role of human capital in economic growth, there are two extreme perspectives; one side represented by Solow (1957) decomposing growth into factors of production, especially capital and labour, but human capital figures nowhere while the other side represented by Romer (1990) considering human capital as an explanatory variable, explaining economic growth. Following Solow, a scholastic tradition of decomposing economic growth into factors production, known as growth accounting, emerged. Quite interestingly, this lineage found a large part of growth not explained by factors of production, so new aggregate, called Solow residual, was devised to account for part of growth not explained by capital and labour. Basically, Solow residual is a black box subsuming knowledge, human capital, and technology and so on. On the other hand, Romer (1990) specifies output as a function of human capital, physical labour and physical capital. To cite Romer (1990, p s80) "Final output Y in this model is expressed as a function of physical labour L, human capital devoted to final output H<sub>Y</sub>, and physical capital." Romer sees an explicit link between human capital and growth (p s73) "The growth rate is increasing in the stock of human capital, but it does not depend on the total size

of the labour force or population. In a limiting case that may be relevant for historical analysis and for the poorest countries today, if the stock of human capital is too low, growth may not take place at all". Romer hints possibilities like a huge labour force, but low human capital stock, implying uneducated labour force. As shown by Romer, human capital has vital role in making a private good from a public good, for instance ability to use a design is the function of human capital and it is a private good while design is a public good<sup>3</sup>.

There is an interesting contrast between Solow and Romer. Solow was more concerned about full employment than how long labour is employable<sup>4</sup>. On the other hand, Romer, by bringing human capital explicitly in growth equation, puts more weight on ability of individual, which is closer to the notion of employability (see Box 2).

#### Box 2: Romer versus Solow

Romer's (Romer, 1990) production function is as follows

$$Y(H_y, L, x) = H_y^{\alpha} L^{\beta} \sum_{i=1}^{\infty} x_i^{1-\alpha-\beta}$$

Y is final output,  $H_y$  is human capital devoted to final output, L is physical labour, and x is physical capital. In this equation, sum of exponents is one, and this is to say that firm is price taking, facing competition in the market. In such situations, sum of exponent is one, implying constant returns to scale. Romer (1990) shows the distinctiveness of his specification (p s84) "The crucial feature of the specification used here is that knowledge enters into production in two distinct ways. A new design enables the production of a new good that can be used to produce output. A new design also increases the total stock of knowledge and thereby increases productivity of human capital in the research sector"

Solow (1957) uses an aggregate production function: Q = A(t) f(K, L)

A(t) measures the cumulated effect of shifts over time. K is capital. L is labour. There is no human capital in this production function.

#### 1.2. Education and Modernity: Sociological perspectives

<sup>&</sup>lt;sup>3</sup> Rather the design is a quasi public good. It is a non rival good, implying different users can use it at a time. However, intellectual property rights can exclude people from using it.

<sup>&</sup>lt;sup>4</sup> To cite Solow (1956) "Solution gives the only time profile of the community's capital stock which will fully employ the available labour" (p. 68)

The potential of education for increasing the employability of a person through skill-generation and knowledge impartation is a globally accepted notion today. Literature relating to this theme can be broadly categorised into three groups: those dealing with the issue of the a) education and economic growth<sup>5</sup>, b) education and social/class/occupational mobility, and c) the broad theme of education, occupational mobility and development.

The idea of class/occupational mobility is intrinsically linked to the emergence of modern industrialised nations where scope for *achieved status* emerged as opposed to the previously existing *ascribed status* of individuals. <sup>6</sup> The possibility of altering one's class and status through achievements is essentially a feature of industrialised societies which are considered as "open" societies so far social mobility is concerned (Lipset & Bendix, 1959). In a modern industrial society one gets returns depending upon the quality of the skills embodied by him/her. In such a society increasing importance has come to be attached to education as a mechanism of generation of skills and acquisition of the necessary knowledge base for moving up the occupational ladder.

Knowledge has always been regarded as having a reflexive relationship with economic power, both influencing each other. However, it is difficult to ascertain the exact period from when education came to be seen as linked to occupational mobility. It is a fact that expansion of formal schooling system was the result of industrialization in Great Britain. As the complexity of industrial skills increased the importance of schooling to produce the required skilled workforce also increased (Fagerlind & Saha, 1997).

Studies on the broad theme of education and social/class/occupational mobility revolve around the examination of the following sub-themes: i) whether education promotes occupational/ social/class mobility or not, ii) whether positive relation between education and class/occupational mobility differs according to the level of development of the nation, and

<sup>&</sup>lt;sup>5</sup> This has been already discussed

<sup>&</sup>lt;sup>6</sup> Achieved status is obtained on the basis of individual achievement and hence it may be higher or lower than the position acquired at birth. Ascribed status on the other hand, is "acquired at birth on the basis of the social standing of an individual's parents...it is fixed rigid and transmitted across generations." (Burgess, 1986).

finally iii) role of education in class reproduction. In the first sub-set of studies education is shown as positively related to class/ occupational mobility. In the second set of studies attempts are made to determine whether the positive relation between education and class/ occupational mobility vary according to the level of industrialization of a country (e.g. higher the level of industrialization of a country higher the degree of association between the two variables and vice versa). The third set of studies have looked critically at the relation between education and class/occupational mobility and questioned the positive association between these two variables. These studies argue that instead of aiding in class mobility education helps in reproduction of the existing classes and maintains the existing stratification system<sup>7</sup>.

Of these the central concern of sociologists revolves around how education contributes to class/social/occupational mobility (Coleman, 1966; Halsey, 1972; Heath, 1981 as quoted in Burgess, 1986). However, in most of these studies it is widely assumed that education system has been the main mechanism of class mobility. These works are based on the related concepts of meritocracy and equality of opportunity.<sup>8</sup>

Comparative studies on the relation between education and occupational/class mobility in different nations clearly show that the positive association between the two is greater in industrialised nations than the less industrially developed ones (Havighurst, 1958; Holsinger, 1975; Meyer, Tuma & Zagórski, 1979). Higher the level of industrialization of a country higher is the possibility that education act as a major determinant of occupational mobility. For example, America shows higher levels of occupational mobility as linked to education than countries such as Brazil or Poland.

As a critique of these studies, have emerged a group of studies on the theme of education and class reproduction. Bowles and Gintis (1976), for example, show how education facilitates class reproduction and thus to perpetuate inequality in capitalist societies. They believe that, instead of facilitating class mobility, schools in fact reinforce the class structure in society.

<sup>&</sup>lt;sup>7</sup> Stratification refers to division of society into classes, which form a hierarchy.

<sup>&</sup>lt;sup>8</sup> For a detailed discussion on the debates concerning these concepts see Burgess (1986), *Sociology, Education and Schools*, pp: 48.

Schools serve to reproduce the class structure of capitalist society by producing a docile and compliant workforce.

Related to this theme is the work by Bourdieu which shows how education reproduces the structure of class in capitalist society. <sup>9</sup> Bourdieu argues that although education system appears to function on the basis of neutrality it actually serves to reinforce the class relations. The pedagogic process is legitimated through mutually dependent ideologies of equality of opportunity and meritocratic achievement. But in reality those students, having the necessary socialization that can bestow on them the 'cultural capital'<sup>10</sup> in appropriate quantity and kind, will necessarily out-perform those who lack it. It is only those who have particular cultural endowments, by virtue of their privileged class location (which gets translated into and is portrayed as merit), who succeed in the so-called neutral education system (Jenkins, 1996).

As a natural corollary to the importance placed on education, in terms of its potential for bringing about class/occupational mobility and economic growth, emerged an increased emphasis towards investment in education for national development. This concern became prominent in the period following the Second World War when a new sub discipline called "development studies" was born specifically to address the problem of the less developed countries or the Third World countries. The rapid economic development of Japan in the post Second World war period largely reinforced the belief in the close connection between education and economic growth. Since the 1950s and the 60s it this came to be largely accepted by academicians, policymakers and politicians supported by international developmental agencies.

The so-called development theories are traced to have emerged with the group of theories belonging to the *Modernization school* in the 1950s. Investment on education, more specifically Western form of formal schooling, came to be perceived as essential for the backward nations to develop. Broadly speaking, the Modernization school believes that the underdeveloped countries are so because they have traditional institutions and value-system

<sup>&</sup>lt;sup>9</sup> Two important sources of his work on sociology of education are *The Inheritors* (1964) and *Reproduction in Education, Society and Culture* (1970)

<sup>&</sup>lt;sup>10</sup> Cultural capital is the cultural endowment emerging out of particular forms of socialization.

which are impediments towards development. The only way these countries can aspire for development is to adopt the modern Western institutions. Development of modern educational system is essential in these countries to transmit Western value system, which in turn will contribute to economic growth and overall development in the long run.

Among the notable thinkers of this tradition are David McClelland and Alex Inkeles. In his book *The Achieving Society* (1961), McClelland argues that the advancement of the society depends on the individual personality traits and values held by majority of the population. He believed a society having a large proportion of individuals with the personality trait of what he calls "need for achievement" will be more conducive to economic and technological advancement. He argued that 'Western style education and cultural diffusion' are helpful in injecting achievement motivation into Third World countries (So, 1990).

On similar lines, Alex Inkeles argued that the development of modern values is essential for modernization (*Becoming Modern*, 1974). The causal chain linking the development of modern institutions to economic growth as traced by them is as follows:



Inkeles & Smith (1974)

On the whole the sociological contention of the modernization school is that education, modeled on the Western system of formal schooling, is the most important pre-requisite for any country to develop by transforming itself from a traditional society to a modern one.

## Section 2: Educational Attainment in Indian districts

#### 2.1 Level of Education

Barro and Lee (1991) have made a meaningful classification of educational levels into seven categories.<sup>11</sup> These categories include people with no literacy skills (those who had no schooling), people with literacy skills but below primary level (this could be achieved through adult education programmes as well), primary level of schooling, middle level of schooling, secondary level of schooling (normally attainment of matriculation), higher secondary education including diploma and vocational training, and graduation and above. This classification is useful for our analysis since it shows how many years of investment in human capital formation may have been made for different levels of education. Table 3 provides this information for all seven levels. Census of India and National Sample Survey collects this information on a regular basis, which could be brought into this framework.

Level of education	Years of schooling	Approximate age of completion	Cumulative years of schooling
Illiteracy	No schooling		0
Literate but below primary	Vary from few months to four years	This could also be a later age since literacy may be acquired through adult learning programmes or mere life experience	< 4
Primary	Four years (some pre-primary education is assumed)	09	04
Middle	Three years in addition to primary	12+	07
Secondary	Three years in addition to above levels	15+	10
Higher secondary	Two years in general education and six or one year in the case of diploma	17+	12
Graduation and above	Three years in addition to above levels for graduation; post graduation would be another two years.	20+	15+

As it has been pointed out in the introductory section, our interest is to understand the educational level of young persons in India. Persons in the age group of 15-34 are considered

<sup>&</sup>lt;sup>11</sup> See Thomas et al (1998) for an application of this scheme using international data.

to be young persons, whose educational levels are analysed in this section. Wherever appropriate, comparison of this age group with general population has been made<sup>12</sup>.

#### Educational achievements: A national level picture

Following table presents literacy level in India since 1951. As it is evident, the female literacy is an important concern since only about half of them are able to read and write.

Year		Literacy rate		
	Persons	Male	Female	
1951	18.33	27.16	8.86	
1961	28.3	40.4	15.35	
1971	34.45	45.96	21.97	
1981	43.57	56.38	29.76	
1991	52.21	64.13	39.29	
2001	64.84	75.26	53.67	

 Table 4: Literacy Rates for India (1951-2001)

Source: http://www.censusindia.gov.in

As it has been pointed out earlier, our aim is to go beyond the analyses of literacy and to examine different levels of education. Following figure (figure 2) shows the attainment of educational levels for general population and youth. Thirty per cent of young persons are illiterate (five per cent lower than general), and at the higher levels of education, they consistently perform better than the general population.

<sup>&</sup>lt;sup>12</sup> Given the above table, it is understandable that there will be no persons in the age group of 'below 17', who have attained higher secondary level of education. In similar way, in 'below 20' age group, there will be no one who have attained graduate or above levels of education.



Figure 2: Education levels: Comparison of youth and general (India)

Source: Computed from Census, 2001

The above figure shows a comparative illustration of educational levels among the youth and general population in India. It is quite clear that the percentage of illiteracy among youth is lower than the general population; meanwhile, the status of higher education among youth is better while compared to general population. It is quite interesting to note that the gender disparity among youth in terms of illiteracy is quite apparent (figure 3). While female illiteracy is 40 %, male illiteracy is just half of female illiteracy. A similar pattern holds true for rural-urban comparison too (figure 4). Illiteracy in rural sector is more than two fold of illiteracy in urban sector. Further, illiteracy rates for disadvantaged groups, scheduled caste and scheduled tribe, is ten to two percentage higher than the aggregate rate (figure 5).



**Figure 3:** Educational disparities for gender in India (age group of 15-34)

Source: Computed from Census, 2001

# **Figure 4:** Educational levels in Rural and Urban Areas in India (Age group of 15-34)



Source: Computed from Census, 2001



**Figure 5: Disadvantaged Groups and Educational Levels** 

Source: Computed from Census, 2001 (Age group of 15-34)

It is quite obvious from the descriptive analysis of data carried out above that India has not made desirable progress in providing education to its population. One third of population is illiterate and the proportion of population declines steeply with higher levels of education. Sequel to this stylised fact, a question arises. Does India have sufficient number of institutions to provide education? To answer this, we have computed trend growth rate, specifying number of institutions as a function of time spanning from 1950-51 to 1999-2000<sup>13</sup> (Table 5, figure 6). The growth rate varies from 2 % to 5.4 %, primary level and colleges showing lowest and highest growth rates respectively. Given the fact that India's slow progress in educational attainment, the growth rates institutions appear to be far lower than the desirable level.

<sup>&</sup>lt;sup>13</sup> The above trend growth rates are estimated from the following equation of Ln Y = a + b Time. Ln Y stands for Natural logarithm of number of institutions and Time for the period 1950-51 to 1999-2000.

#### Table 5: Trend growth rate of educational Institutions in India

Levels of education	Trend Gr	Trend Growth Rate	
Primary	2 %	(93%)	
Upper Primary	4.8%	(85%)	
High School/Higher secondary	5.3%	(96%)	
Colleges	5.4%	(96%)	

Note: All coefficients are statistically significant at 1% level. Figure in parenthesis represents  $R^2$ .

Source: Computed from the data downloaded from Indiastat.com

Figure 6: Educational Institutions in India (1951-2001)



Source: Computed from the data downloaded from Indiastat.com

#### 2.2 Level of Education: District Level Analysis

A good number of studies have focused on the illiteracy situation of the country, and emphasised on the need for primary education. It is also important to note that the government has been expanding the primary education to reach to the vast majority. One of the key objectives of the government has been to have primary schools within a range of five kilometers of human communities to increase access.<sup>14</sup> In addition, government also introduced

<sup>&</sup>lt;sup>14</sup> There is also an argument that it is not government's expansion programmes, which are responsible for the educational attainments. This paper does not attempt to solve the cause-effect dilemma of educational attainment. Rather, the aim is to map the education attainment at different levels, and to find its connection with labour market.

a number of adult education programmes through which persons who have passed the age of schooling could acquire literacy. This paper is not attempting to evaluate these initiatives or the processes involved there. One important question that we address in this section is whether the illiteracy rate conveys the proportion of higher levels of education. A probable answer to this question can be high illiteracy rate for a particular region coexists with lower levels of educational attainments levels and vice versa. Here, to explore the above question we fit distribution of population according to education level and examine whether any pattern emerges. We have divided all the 593 districts into 5 categories, subsuming 14 sub-categories<sup>15</sup> (Table 6).

Types of Category	Total	Major regions	Nature of Pattern	
(Percentage of illiteracy)	districts			
55 and above	27	Northern Bihar, Southern Orissa, Part	Downward Sloping	
	(4.55)	of Eastern Uttar Pradesh		
45 to less than 55	63 (10.62)	Central Bihar, Parts of Southern and Eastern Uttar Pradesh	Downward Sloping with less obvious pikes in the middle	
35 to less than 45	119 (20.07)	Part of Eastern UP, Vindhya Region of Madhya Pradesh, Western Assam, Western and South-eastern Rajasthan	Downward Sloping with more visible pikes in the middle	
15 to less than 35	297 (50.08)	North West Bengal, Northern Karnataka, Central Maharashtra	Relatively fuzzy pattern	
Less than 15	87 (14.67)	Kerala, Mizoram, Goa, Lakshadweep	Fuzzy to inverted U- Shape	
Total	593 (100.00)			

 Table 6:
 Percentage of Illiteracy and Major Regions in India

Note: Figure in parenthesis indicates percentage.

*Source:* Computed from Census, 2001 (See Appendix 1)

#### CATEGORY 1: Downward Sloping (Figures 7, 8, and 9)

Category 1 includes three graphs (Figures 7 to 9) following downward sloping distribution of education. Quite evidently, it appears that a high rate of illiteracy coexists with lower level of educational attainment. The curve which depicts the relation between percentage of population (on Y axis) and level of education (on X axis) is inverse, steeply falling. This is clearly an asymmetric probabilistic distribution, lacking movement towards measure of central tendency.

<sup>&</sup>lt;sup>15</sup> These subcategories include intervals 0-5, 6-10, 11-15, 16-20, 21-25, 26-30, 31-35, 36-40, 41-45, 46-50, 51-55, 56-60, 60-66 and 66 and above.

Total of 27 districts are identified in this category. Quite interestingly, major regions belonging to this category (Northern Bihar, Southern Orissa and parts of Eastern Uttar Pradesh) share a history of low human development (National Human Development Report, 2001). A useful cue emerging from the pattern is: what happens to distribution if illiteracy rate is reduced significantly? Our guess is a constructive literacy initiative, which is inclusive and integrating vocational requirements, can have significant impact on educational attainment. Considering a typical educational process as a sequence of levels, such as literacy to primary to secondary and so on, higher rates of literacy is going to create more demand for higher levels of education.



Figure 7: 66 percent and above illiteracy districts (N=4)

Source: Computed from Census, 2001



Figure 8: 61-65 percent illiteracy districts (N=13)

Source: Computed from Census, 2001

Figure 9: 56 - 60 percent illiteracy districts (N=10)



Source: Computed from Census, 2001

# CATEGORY 2: Downward Sloping with less obvious pikes in the middle (Figures 10 and 11)

Noteworthy cases representing this category include regions covering districts located in Central Bihar and parts of Southern and Eastern Uttar Pradesh. In total, the category has 63 districts. The patter representing category two has now significance deviation from one, expect a less obvious peak at the primary education. In fact, category two represents progress to next level of education, i.e., more people get primary education. Such a change is unlikely to be a product of an organised system wide collective action; rather it can be attributed to a change over a period of time.



#### Figure 10: 51-55 percent illiteracy districts (N=22)

Source: Computed from Census, 2001

#### Figure 11: 46-50 percent illiteracy districts (N=41)



Source: Computed from Census, 2001

#### CATEGORY 3: Downward sloping with more visible pikes in the middle (Figures 12 and 13)

This category includes 119 districts. Its important to note that major regions coming under this category include part of eastern Uttar Pradesh , Vindhya region of Madhya Pradesh, Western Assam and Western and South-Eastern Rajasthan. It is quite apparent from the following figures that middle level education has the second highest proportion after illiteracy which is in the range of 35 to 45 %. This category seems to form a path, connecting previous categories, indicating slow progress towards next level of educational attainment.



#### Figure 12: 41-45 percent illiteracy districts (N=47)

Source: Computed from Census, 2001



Figure 13: 36-40 percent illiteracy districts (N=72)

Source: Computed from Census, 2001

#### CATEGORY 4: Relatively fuzzy pattern (Figures 14, 15, 16 and 17)

The category 4 includes 297 districts consisting of major regions such as North West Bengal, Northern Karnataka and Central Maharashtra. The pattern emerging in this category appears fuzzy indicating lesser asymmetry across the educational levels. This pattern clearly represents better educational attainment in comparison to previous categories. It is quite likely this pattern is a product of steady change, featuring a continuous transition from earlier three categories. Compared to previous categories, a significant proportion of population has attained secondary level of education.



Figure 14: 31-35 percent illiteracy districts (N=79)

Source: Computed from Census, 2001





Source: Computed from Census, 2001



Figure 16: 21-25 percent illiteracy districts (N=76)

Source: Computed from Census, 2001

Figure 17: 16-20 percent and above illiteracy districts (N=70)



Source: Computed from Census, 2001

#### CATEGORY 5: Fuzzy (only subcategory 1) to inverted U-Shape (Figures 18, 19 and 20)

The pattern in this category shows an inverted U shape. The major region under this category includes smaller states like Kerala, Mizoram, Goa and Lakhshdweep. An important feature which integrates distributions given in the following figures is low illiteracy levels varying from 0-15 %. A pronouncing character of this pattern is that it is symmetric, showing tendency towards the centre. Quite interestingly, the symmetric pattern of this category is contrary to

asymmetric pattern representing the category-1. Here, the percentage of population (plotted on Y axis) increases up to secondary level and then declines. Perhaps, this pattern is relatively more inclusive than the rest.



Figure 18: 11-15 percent illiteracy districts (N=50)

Source: Computed from Census, 2001

Figure 19: 6-10 percent illiteracy districts (N=20)



Source: Computed from Census, 2001



Figure 20: 0-5 percent illiteracy districts (N=17)

Source: Computed from Census, 2001

#### 2.3 Education and Labour market

Our analysis shows one third of districts in India report illiteracy rate in the age group of 15-34 varying from 35 - 70 %. More specifically there are 63 districts where on average one out of two youth are illiterates and the situation is worse in 27 districts, illiteracy varying from 55% to 70%. This category of region has two out of three youth illiterates. Quite clearly the data unravels the scarcity of educational attainments among youth in India. An important question arises, is high illiteracy rate explained by lack of demand for educated labour force in India?

As appears from data, irrespective of segments in labour market varying from casual segment to organised segment, education seems to be an important quality to participate in the labour market. While the participants in the casual labour market have on an average 3.5 years of schooling (Table 7), the organised sector on the other hand have 9.9 years of average education. Although level of education varies across gender, it seems education is crucial for participating in the labour market. In aggregate, close to one third of Indian youth are illiterates and proportion steeply declines with level of education (Figure 2). Quite apparently, one third of youth are unlikely to be absorbed in the casual labour market. In other words, here, labour market is not inclusive, filtering a significant proportion out of the market. In backward districts the problem is even more acute. In these regions, two out of three youth are likely to be excluded from the labour market, without gaining opportunity to have decent livelihood. In fact, self employment can be a good substitute to hiring by an employer but as given in the data, the average education required to become self employed is 5.9 years of schooling, showing that education is not only important for hiring by employer but for seeking livelihood through self employment. It is quite likely that an educated entrant to self employment has advantages over uneducated one, especially in access to inputs such as credit, market related information, social security and so on which are crucial for the sustenance of livelihood.

Table 7:Mean Years of Schooling of Non-Agricultural Workers by Employment<br/>Status 2004-05

Employment status	Male	Female	Total
Unorganised Sector (casual)	3.8	1.7	3.5
Unorganised Sector (Regular)	7.1	5	6.7
Unorganised Sector (Self Employed)	6.5	3.8	5.9
Unorganised Sector (Total)	6.1	3.7	5.6
Unorganised workers in OS-RW	8.5	8.5	8.5
Unorganised workers in OS	6.4	5.5	6.2
Organised Sector (OS) Total	9.1	8.1	9
All Workers	6.9	4.9	6.5

US = Unorganised sector

OS = Organised sector

RW = Regular Work

*Source:* National Commission for enterprises in the unorganised sector (2007) based on NSS 61<sup>st</sup> Round

Further, in Indian labour market, occupational status seems to have relation with segments of labour market. Quite pertinently, in organised sector, regularly employed labour involved in professional and technical occupations forms one fourth of total regular organised sector labour. It is important to note that years of schooling observed in the organised sector labour market is three fold higher than that observed in the casual labour market. This implies that more sought after jobs in organised sector require educational attainments similar to category 5. Moreover, service sector, accounting for more than half of India's GDP, is going to be the major source of employment in the future, generating more occupations that require higher levels of educational attainments. The pattern of education following category 1, 2 & 3 is likely to be excluded from the jobs generated by economic growth in the service sector. Then, what

are the options left to the districts falling under categories 1, 2 and 3? First, the table reveals that production and transport related occupations form nearly 90% of casual labour market taking both unorganised and unorganised labour market together (Table 8). Second, casual labour market in comparison to other segments absorbs labour force with lesser education. Obviously, combining above two points, a labour supply system characterised by low educational attainment is pushing illiterate and less educated labour force into low end manufacturing jobs in casual labour market where livelihood is not protected by social security.

Table 8:Percentage of Non-Agricultural Workers across Occupational Categories<br/>by Status and Gender 2004-2005

Occupational Category	Casual		Regular		Self- Employed	
	US	OS	US	OS	US	OS
Professional, Technical etc.	0.4	0.6	8.7	25.7	5.3	7.9
Administrative, Managerial	0.1	0	1	4.6	14	42.5
Clerical etc	0.7	0.9	7.6	24.1	0.3	1.3
Sales	2.7	0.8	19	2.7	32.5	18.4
Service	6.4	3.5	20.2	12.1	7.6	2.5
Farmers and Related	0.4	0.5	0.3	0.6	0.2	0.1
Production, Transport and Related	89.4	93.7	43.2	30.1	40.2	27.3
Total	100	100	100	100	100	100

US = Unorganised sector

OS = Organised sector

## *Source:* National Commission for enterprises in the unorganised sector (2007) based on NSS 61<sup>st</sup> Round

Our focus in this section is on young persons have to be seen within the wider framework that India, as a nation is young. 70% of Indian population belongs to the age group of less than the age of 34. In the age group of 15-34, there is 34% of Indian population (figure 21). Thus, arguably, there is potential demographic dividend for India. However, out of ten persons in this age group four are illiterates, making them unfit for even the causal labour market (Figure 5). In the context of youth resources not utilizable in the emerging knowledge economy, these young people need to be appropriately trained to be fit in the dynamic labour market. Otherwise, such young persons may be demographic deficit for the country.


Figure 21: Demographic Evidence for Youth Advantage in India<sup>16</sup>

Source: Computed from Census, 2001

<sup>&</sup>lt;sup>16</sup>X axis and Y axis are represented by age and percentage respectively.

## Section 3: A Tale of Contrast

In the previous section, we described the link between low educational attainment of youth and their participation in the labour market in India, highlighting the average educational levels required to participate in different segments of labour market. Quite clearly, even lower segments of labour market such as casual labour market which is relatively unorganised, without social security, requires average 3.5 years of schooling to function in the labour market. This means, districts with asymmetric distribution are likely to have high proportion of youth labour force who are not even employable in the casual labour market. Understandably, Bihar, a state with low educational attainment, has very little scope to induct its youth to jobs resulting from globalization that requires higher levels of educational attainment. On the other hand, a region with symmetric distribution may have easier access to global jobs, due to the region's higher educational attainment. Here, Kerala is an illustrious case. Kannan and Hari (2002) shows exponential growth of gulf remittances to Kerala. According to them, remittance as a proportion of State Domestic Product of Kerala has increased from 2% to 23 % during 1975-76 to 1999-00. During the same period, emigrants from Kerala to Gulf countries as a proportion of emigrants from India to Gulf countries has increased from 14 % to 35 %.

This section brings out two contrasting patterns of educational attainment, by comparing the two states of Bihar and Kerala. While Bihar represents a case of low educational attainment (Category-1 in section-2), Kerala represents the case of high educational attainment (Category 5 in section -2). The former is an example of asymmetric distribution of educational level whereas the latter presents symmetric distribution. In fact, the extent between these extreme distributions is a continuum covering four-fifth of districts which was discussed in the last section. Two extreme ends of this continuum, above mentioned asymmetric and symmetric distributions, constitute one-fifth of the districts. In the case of asymmetric distribution, the State of Bihar is quite noticeable, considering its larger size and history of low human development. On the other hand, the other extreme, characterised by symmetric distribution, Kerala is a noteworthy case, known for its achievements in human development.

### 3.1 Performance Indicators: A Comparison between Bihar and Kerala

Quite apparently, the contrast between Bihar and Kerala is reflected in participation of the labour force in the global labour market. A natural sequence to this is to understand the extent of the contrast between these two states, especially performance of schooling system of these two states. For this exercise, we have two units for comparison: state level and district level. We have chosen four indicators, including pupil teacher ratio, student classroom ratio, percentage of schools with common toilets and percentage of schools with girl's toilets (Table 9). These indicators are obtained from a list of indicators given in Appendix 2 (Mehta 2007). Out of twenty indices, we have selected four indicators based on two criteria. First, indicators are ordered according to the degree of dispersion represented by Coefficient of Variation.<sup>17</sup> Here, our interest is in the co-efficient with higher degree of dispersion. Since the higher degree indicates the greater contrast. Second criterion is to choose the indicators based on its relevance to this study, especially in representing inputs to the primary educational system. Table 9 gives comparison of performance, based on five select indicators, between Bihar and Kerala for the year 2005-2006. Quite clearly, Kerala out performs Bihar in all indicators across all levels of schooling. It appears low educational attainment co-exists with poor availability of basic inputs required to provide education. On the other hand, it seems there is a link between higher educational attainment of Kerala and better availability of basic inputs, especially teachers, class room and toilet. Obviously, a transition from low educational attainment to higher education remains a mirage without adequate supply of basic educational inputs.

<sup>&</sup>lt;sup>17</sup> Coefficient of variation is standard deviation divided by average times 100 across states. Higher the coefficient of variation, higher is the degree of dispersion and visa versa.

				Levels					
Performance Indicator	Primary		Upper Primary Uppe +Seco		Upper +Second Sci	Upper Primary +Secondary/High School		All Schools	
	Bihar	Kerala	Bihar	Kerala	Bihar	Kerala	Bihar	Kerala	
Pupil Teacher ratio	63.0	26.0	44.0	26	36.0	37	65.0	29	
Student Classroom ratio	91.0	30.0	71.0	32	34.0	23	92.0	29	
Schools with common toilets	25.8	80.4	61.3	77.3	50.5	71.1	34.9	78.4	
( in percentage )									
Schools with girls' toilets	7.0	61.6	32.7	78.5	34.5	89.3	11.8	68.1	
( in percentage )									

### Table 9: Select Performance Indicator for Schooling (2005-2006)<sup>18</sup>

Source: Mehta (2007)

The contrast portrayed in Table 9 is reflected in district level as well (Tables 10 and 11). Here, we compare four select indicators, described above, with transition rate from primary to upper primary which can be a proxy for the output of primary education. Transition rate, for Bihar, varies from 42.9 % to 82.1 % while Kerala reports a low spread, between 87.1% and 100%. Connecting Tables 3.1, 3.2 and 3.3, the discussion above which views the need for better educational inputs to have better educational attainment seems to be corroborated by the apparent contrast in transition rate between Bihar and Kerala (See Box 3).

<sup>&</sup>lt;sup>18</sup> We found, upon comparing figures in Table 3.2 and national average, figures in respect of Kerala are significantly greater than the national average while figures in respect of Bihar are much lower than the national average.

Name	Pupil	Student	Schools with	Schools with	Transition rate
	Teacher	Class	common toilets	girls' toilets	(Primary to Upper Primery)
	1 2010	Ratio	(in percentage)	( in percentage )	( in percentage )
Araria	67	92	13.6	2.7	59.1
Aurangabad	52	100	23.3	4.1	64.4
Banka	60	72	20.8	15.9	44.0
Begusarai	88	91	45.4	15.2	80.4
Bhagalpur	67	85	26.1	9.5	60.4
Bhojpur	115	76	13	5.2	78.4
Buxar	98	87	14.3	6.1	81.4
Darbhanga	74	100	18.2	5.6	62.6
Gaya	64	86	26	12	56.9
Gopalganj	56	101	33.3	6.7	63.9
Jamui	63	81	22.4	3.1	62.1
Jehanbad	60	84	19.6	6.4	75.8
Kaimur (Bhabua)	53	79	23	6.3	78.8
Katihar	68	90	40.4	7.7	59.5
Khagria	48	90	16.9	6.6	58.1
Kishanganj	61	93	19	1.8	55.2
Lakhisarai	68	91	10.3	5	67.1
Madhepura	48	101	22.9	5.3	53.3
Madhubani	57	94	12.9	2.5	64.0
Munger	54	74	15	6.3	63.1
Muzaffarpur	54	87	41.5	15.6	68.4
Nalanda	54	73	45.1	8.2	65.7
Nawada	66	76	9.5	1.6	42.9
Paschim Champaran	68	69	26.6	13.9	59.1
Patna	53	93	19	4	69.5
Purba Champaran	55	96	48.5	6.2	53.8
Purnia	78	113	13.3	2.5	49.1
Rohtas	47	73	16.1	4.9	82.1
Saharsa	55	99	22.2	3.6	57.2
Samastipur	63	104	37.4	5.7	73
Saran	95	109	16.9	7.7	68.8
Sheikpura	68	73	15.4	6.2	62.3
Sheohar	64	92	46.5	10	61.2
Sitamarhi	114	84	50.3	7.4	65
Siwan	53	97	22.7	3.8	57.7
Supaul	63	113	35	5	48.3
Vaishali	62	94	29.3	4.7	75.3

## Table 10: Educational Profile of Districts in Bihar (Elementary Education)<sup>19</sup>

Source: (Mehta 2007)

<sup>&</sup>lt;sup>19</sup> In addition to four select variables, we consider fifth variable, transition rate from primary to upper primary, as an indicator representing the output of primary educational inputs.

Name	Pupil Teacher ratio	Student Class Room Ratio	Schools with common toilets ( in percentage )	Schools with girls toilets ( in percentage )	Transition rate (Primary to Upper Primary) ( in percentage )
Wayanand	29	29	78.6	66.9	96.60
Alappuzha	27	21	73.0	58.8	87.10
Ernakulam	28	27	83.7	78.2	100.00
Idukki	26	25	77.9	71.2	96.10
Kannur	20	24	76.0	47.8	100.00
Kasaragod	22	24	84.1	60.9	100.00
Kollam	28	31	81.6	65.8	96.00
Kottayam	27	26	82.3	72.4	96.70
Kozhikode	23	27	83.9	58.7	97.00
Malappuram	29	33	86.9	60.0	90.50
Palakkad	27	30	79.9	50.2	91.90
Pathanamthitta	20	21	71.8	59.7	100.00
Thiruvananthapuram	31	34	74.8	66.5	100.00
Thrissur	29	30	80.4	64.5	90.00

Table 11: Educational Profile of Districts in Kerala (Elementary Education)<sup>20</sup>

Source: (Mehta 2007)

#### **Box 3 Comparison of contrast**

This is a comparison of most literate district in Kerala, Kottayam and most illiterate district in Bihar, Kishanganj (Appendix 1). Referring to the discussion on distribution of educational attainment across districts in India given in Section 2, Kottayam has an inverted U shape distribution while Kishanganj has an inversely sloped curve. Following Table gives important cues which perhaps explain why such a contrast exists between these districts. Obviously, across the levels of education, Kottayam has more inputs to produce education, compared to lower flow of inputs into production of education in Kishanganj. This disparity in the flow of inputs into education may have resulted, along with other important historical reasons in the difference in educational attainments.

	Prim	Primary Upper Primary		Upper Pr Secondary Secon	imary + y/Higher dary	
Performance Indicator	Kishanganj	Kottayam	Kishanganj	Kottayam	Kishanganj	Kottayam
Pupil Teacher ratio	61.0	27.0	26.0	24	0.0	48
Student Classroom ratio	93.0	26.0	65.0	24	0.0	21
Schools with common toilets (in percentage)	19.0	82.3	0.0	67.9	0.0	74.1
Schools with girls toilets (in percentage)	1.8	72.4	0.0	82.1	0.0	83.7
Source: (Mehta 2007)						

<sup>&</sup>lt;sup>20</sup> In addition to four select variables, we consider fifth variable, transition rate from primary to upper primary, as an indicator representing the output of primary educational inputs.

<sup>&</sup>lt;sup>21</sup> In Mehta (2007), SCR for Alappuzha is an unlikely figure, 10654. This appears to be a printing mistake.

## **3.2** Comparison of Labour Market: Education, Economic activity and Occupation

We assess the contrast by giving a comparative picture of three key variables: Mean years of schooling and educational attainment of non-agricultural workers, distribution of household's economic activity and occupation. Table 12 describes mean years of schooling and educational attainment of non-agricultural workers for Bihar and Kerala, giving sector wise and gender wise figures. Quite evidently, labour force in Kerala, whether organised or not, has higher mean years of schooling than Bihar. This gap between these states becomes even more pronounced for gender. Further, the gap, mentioned above, is reflected in educational attainment. Interestingly, two third of labour force in Kerala has middle and above education whereas same proportion of Bihar's labour force has primary and below education. However, this gap is less pronounced for organised sector.

	Me	ean years of sc	hooling (Rural)				
	Unorgani	sed sector	(	Organised Sector			
	Male	Female	Male	Female			
Kerala	7.4	6.9	9.5	9.1			
Bihar	4.3	1.4	7.2	6.6			
Educa	tional attainme	ent (Unorganis	ed sector) (Figu	res in percentage)			
	Ma	ale		Female			
	Primary and Below	Middle and above	Primary and Below	Middle and above			
Kerala	29.2	70.8	39.5	60.5			
Bihar	63.1	36.9	86.9	13.1			
Educa	ational attainm	ent (Organise	d Sector) (Figur	es in percentage)			
	Ma	ale		Female			
	Primary and Below	Middle and above	Primary and Below	Middle and above			
Kerala	20.0	80.0	30.0	70.0			
Bihar	42.7	57.3	40.5	59.5			

Table 12:Non-Agricultural Labour – Schooling and Educational<br/>Attainment

**Source:** National Commission for enterprises in the unorganised sector (2007) based on NSS 61<sup>st</sup> Round

It is important to note same degree of contrast in educational attainment exists in the distribution of economic activity and occupation as well (Table 13). More than two third of

households in Bihar are engaged in agriculture, while one third of Kerala households engage in agricultural activities. Moreover, for Bihar, disaggregating distribution of activities based on two digit national industrial classification (NIC), shows high degree of skewness. On the other hand, this distribution, for Kerala, is more evenly distributed. This contrast, skewness and evenly distributed, is noticeable in the distribution of occupation.

National Industrial Classification (NIC) of Economic Activity-		
Broad Categories	Bihar	Kerala
Agriculture	70.07	35.62
Industry	9.66	25.72
Service	20.27	38.65
Total	100.00	100.00
NIC 2 Digit Classification	Bihar	Kerala
Agriculture, Hunting and Forestry	70.07	33.92
Mining & Quarrying	0.16	1.54
Manufacturing	5.74	11.93
Electricity, Gas and Water Supply	0.14	0.37
Construction	3.67	12.72
Trade	9.77	13.33
Hotels & Restaurants	0.91	2.91
Transport, Storage and Communication	3.29	8.64
Financial Intermediation	0.35	1.92
Real Estate	0.39	1.65
Public Administration	1.35	2.44
Education	1.50	3.61
Health and Social Work	0.46	1.55
Other Community, Social, Personal services	1.71	2.18
Undifferentiated Production	0.49	1.29
Total	100.00	100.00
National Classification of Occupation	Bihar	Kerala
Professional, Technical etc.	2.89	5.77
Administrators/Managers etc.	1.50	5.89
Clerical etc.	9.95	15.25
Service, Sales	2.39	6.38
Agriculture and Related Work	70.03	35.54
Production & Operation Related Work	13.23	31.06
Total	100.00	100.00

## Table 13:Economic Activity and Occupation<br/>(Percentage Distribution of Household)

**Source:** Computed from NSS 61<sup>st</sup> Round Unit Level Data

Another important aspect emerging from the data is the disparity between these two states in distribution of households in top ten high frequency occupations<sup>22</sup>. Interestingly, two third of households in Bihar are engaged in first two jobs; farm hands and labourer and cultivators (Table 14). On the other hand, top ten high frequency occupations account for nearly half of households in Kerala, reflecting relatively higher diversity in occupations.

	Bihar		Kerala				
NCO- 1968 Code	Description of Code	Percentage	NCO- 1968 Code	Description of Code	Percentage		
630	Farm hands and Labourer	31.99	620	Planter	11.83		
610	Cultivator	31.01	640	Labourer plantation	6.39		
401	Retail Dealer	6.40	630	Ploughing	5.24		
611	Cultivator Tenant	5.24	401	Retail Dealer	4.85		
999	Construction Labourer	1.73	986	Driver Auto Rickshaw	4.41		
951	Brick Layer and Stone Mason	1.68	610	Cultivator General	4.41		
988	Cycle Rickshaw and Rickshaw Puller	1.59	951	Stone Mason	3.39		
431	Street Food Vendors and Other Elementary Occupations	1.01	959	Well digger	3.21		
560	Hair Dresser, Barbers and Beauty Related Workers	0.87	811	Carpenter and Joiner	2.55		
811	Carpenters and Joiners	0.86	641	Trapper Palm Juice and Rubber	2.22		

### Table 14: Top Ten High Frequency Occupations (Household)

Source: Computed from NSS 61<sup>st</sup> Round Unit Level Data

<sup>&</sup>lt;sup>22</sup> Frequency of occupation means number of households engaged in that occupation. Therefore, an occupation becomes a high frequency occupation when it has relatively higher number of households.

### **Section 4: Concluding Remarks**

From our discussion on educational attainment and its link with Indian labour market, quite clearly it appears demographic dividend expected from Indian youth needs system wide initiatives, addressing better output from the educational system. Our analysis of the distribution of the educational levels, taking district as a unit, unraveled the contrast in educational attainment, existing among districts. A stylised fact emerging in our pattern search is the contrast between asymmetric and symmetric distribution of educational level, represented by districts with low attainment and high attainment respectively. The contrast is indeed striking; two-third of youth are illiterates in districts falling under the category of extreme asymmetry while less than one twentieth of youth are illiterates in districts falling under the other extreme. An obvious implication of this phenomenon, for Indian labour market, is the possibility of direct relation between educational attainment and participation in the labour market. Quite interestingly, even those segments of labour market with no social security such as casual labour market, requires 3 years average schooling. It is quite likely two third of youth who are illiterate in districts with asymmetric distribution will have lesser chances of finding job even in the informal sector.

Given the mismatch between educational attainment and the labour market, as applicable to backward districts in India, the view that the India is going to experience demographic dividend remains a wish. Needless to say, a significant fraction of youth population in India has no educational attainments matching the requirements of ever sprawling global labour market. With agrarian crises looming large in rural India, it is obvious that people would tend to seek jobs in non-agricultural sectors, often getting indecent work barely meeting subsistence. A question arises here. What happens if this two third who are illiterates get opportunity to attain education? Answer to this question entails a comparison of symmetric and asymmetric cases, especially looking at educational attainment and its link with inputs to education and basic characteristics of labour market. Two cases described in this paper, Bihar representing the case of extreme asymmetric distribution and Kerala representing the other extreme, convey why is it important to have better educational inputs to produce better educational attainments, and also to have wider choice of occupations.

Clearly, there is need for initiatives which provide education to the needy so as to move towards inclusive growth. One such important initiative that aims to universalize elementary education in India is Sarva Shikha Abhiyan (SSA) (Box 4).

Box 4: Sarva Shiksha Abhiyan:
A Prorgamme for Universalization of Elementary Education
WHAT IS SARVA SHIKSHA ABHIYAN ?
<ul> <li>A programme with a clear time frame for universal elementary education.</li> <li>A response to the demand for quality basic education all over the country.</li> <li>An opportunity for promoting social justice through basic education.</li> <li>An effort at effectively involving the Panchayati Raj Institutions, School Management Committees, Village and Urban Slum level Education Committees, Parents' Teachers' Associations, Mother Teacher Associations, Tribal Autonomous Councils and other grass root level structures in the management of elementary schools.</li> <li>An expression of political will for universal elementary education across the country.</li> <li>A partnership between the Central, State and the local government.</li> <li>An opportunity for States to develop their own vision of elementary education</li> </ul>
The key objective of SSA is universalisation of elementary education. It aims to provide useful and relevant elementary education for all children in the 6 to 14 age group by 2010. It also aims to bridge social, regional and gender gaps, with the active participation of the

community in the management of schools. The way SSA visualizes useful and relevant education as a quest for an education system that is not alienating and that draws on community solidarity. The SSA specific objectives are as follows.

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

**Source:** *http://ssa.nic.in/ssaframework/ssafram.asp*#1.0

However, even with country wide initiatives such as SSA, the scope for more constructive interventions which target quality schooling at lower costs. There is a challenge requiring collective action jointly by the State and civil society (See Box 5).

### **Box 5: Inclusive Education**

Of late, the Prime Minister, Dr Manmohan Singh, has been so frequently airing his views on the problems facing the economy that it leaves one wondering if it is a precursor to policy changes, a mere expression of regret at missed opportunities or a post-mortem of the United Progressive Alliance's (UPA) record in office. As an architect of the reforms process and the head of a government that has presided over the fastest economic growth in decades, he should know best the hurdles that would have to be surmounted to sustain the mantra of inclusive growth. Since the challenges have been aired so often without any remedial plans, they are in danger of becoming mere clichés.

Addressing captains of industry at the Council of Trade and Industry, Dr Singh stressed the need to think creatively about turning education into a suitable tool-kit for the future. Considering that the critical sector has been the exclusive responsibility of the Centre and the states, that plea would have been more appropriate for Dr Singh's council of ministers that assumed office promising universal education, among other things, through higher allocations and newer schemes. Budgets since 2005 have increased allocations for higher education, reversing the trend till 2003. But allocations are only the beginning and the pity is that the only policy concerning higher education that moved forward decisively was the attempt to get premier institutions into expanding reserved quotas; that, mercifully, has been shelved but the crisis has acquired a new dimension. While social disparities still exist, skill shortages affect every economic sphere. While seeking private sector ideation, the Centre would do well to examine some of the reasons for this double-edged crisis. Start with the Sarva Shikhsa Abhiyan or universal elementary education. A Parliamentary committee this year found wanting, among other things, the quality of teaching! The record of in-service training of 20 days for teachers was dismal not only in backward Bihar and Uttar Pradesh but even in Maharashtra. Another Committee was "dismayed" at the "vast imbalance" in the number of graduates and quality of teaching between the rural and urban areas. Given the regional and income disparities that influence access to education, the Centre must lead from the front by setting standards for inclusive education. It must pay heed to the committee's conclusion that "higher education in the country is largely a pro-rich and urban phenomenon" and equally to the "erosion and decline in work ethics and dilution of norms" in the university system.

Source: http://www.thehindubusinessline.com/2007/12/20/stories/2007122050190800.htm

The growing realization that economic growth is highly skewed, resulting in accumulation of wealth in a few pockets and massive inequalities in the society, is making policy makers conscious of the need for inclusiveness in the development process. The 11<sup>th</sup> plan of Government of India which in its title includes the word "inclusive" to visualize a growth process that reaches all, we feel that for an all inclusive growth which assures people a meaningful employment needs a well educated workforce. We see a growth in India that is jobless and inequitable. To reverse this situation, we need a more focused approach and added investment of resources towards improving the educational attainment, especially for the youth.

#### Reference

- Agbo, S. A. (2003), "Myths and Realities of Higher Education as a Vehicle for Nation Building in Developing Countries: The Culture of the University and the New African Diaspora", Paper presented at the 2nd Global conference titled: The Idea of
- Education, Mansfield College, Oxford July 4-5, 2003. http://www.inter-disciplinary.net/agbo1%20paper.pdf
- Barro, Robert J, and Lee, J W. (1997), "International measures of schooling years and schooling quality, American economic Review, Papers and Proceedings, 86(2), 363-394
- Becker Gary S. (1962), Investment in human capital: a theoretical analysis, Journal of Political Economy, 70-5, pp 9-49
- Bowles S. & Gintis H. (2001), *Schooling in Capitalist America Revisited* http://www.umass.edu/preferen/gintis/soced.pdf

Burgess, R. G. (1986), Sociology, Education and Schools: An introduction to the sociology of education, London: B. T. Batsford ltd.

- Fagerlind I. & Saha L.J. (1997), Education and National Development: A Comparative Perspective, Oxford: Butterworth-Heinemann press.
- Havighurst, R.J. (1958), Education, social mobility and social change in four societies, International Review of Education, 6.
- Holsinger, D. B. (1975), Education and the occupational attainment process in Brazil, Comparative Educational Review 19: 267–75
- Inkeles & Smith (1974) Becoming Modern: Individual Change in Six Developing Countries, Cambridge: Harvard University Press.
- Jenkins, R. (1996), Pierre Bourdieu, London: Routledge
- Kannan K P, and Hari K S (2002), Kerala's Gulf Connection: Emigration, Remittances and their Macroeconomic Impact, 1972-2000, Working Paper No. 328, Centre for Development Studies, Thiruvananthapuram
- Lev Baruch, Abba Schwartz (1971), On the use of the economic concept of human capital in financial statements, Accounting Review, 46-1, pp. 103-112.
- Lipset & Bendex (1959), Social Mobility in Industrial Society California: University of California Press

McClelland D. (1961) The Achieving Society, New York: Free Press.

Meyer, J. W., Tuma N. B. & Zagórski K. (1979), Education and Occupational Mobility: A Comparison of Polish and American Men American Journal of Sociology, Vol. 84, No. 4, pp. 978-986.

Mehta, A. C. (2007) District report cards 2005-06. New Delhi: NUEPA.

- National Commission for Enterprises in the Unorganised Sector (2007), Report on condition of work and promotion of livelihoods in the unorganised sector.
- National Sample Survey Organisation, 61<sup>st</sup> Round, Employment & Unemployment, Unit level data
- National Sample Survey Organisation ,61<sup>st</sup> Round Report No 517- Status of Education and Vocational Training in India 2004-05
- Registrar General of India, Census of India (2001), C Series, Social and Cultural Tables
- Romer Paul M (1990), Endogenous technological change, Journal of political economy, 98-5, pp. S71-S102
- Schultz, Theodore W. (1961), Investment in human capital, American Economic Review, 51-1, pp. 1-17
- So, A. Y. (1990), Social Change and Development: Modernization, Dependency, and World-System Theories. Newbury Park, CA: Sage Publications, Inc.
- Solow Robert M (1956), A contribution to the theory of economic growth, Quarterly Journal of Economics, 70-1, pp 65-94
- Solow Robert M (1957), Technical change and aggregate production function, Review of Economics and Statistics, 39-3, pp. 312-320
- Thomas Vinod, Yan Wang, and Xibo fan (2000), Measuring Educational Inequality: Gini coefficients of education, World Bank Institute

#### Websites

- <http://www.censusindia.gov.in>
- <http://www.dpepmis.org>
- <http://www.indiastat.com>
- <http://www.inter-disciplinary.net/agbo1%20paper.pdf>
- <http://ssa.nic.in/ssaframework/ssafram.asp#1.0>
- <http://www.thehindubusinessline.com/2007/12/20/stories/2007122050190800.htm>
- <http://timesofindia.indiatimes.com/ School\_education\_costlier\_
  - than\_varsity/articleshow/2451957.cms>

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above
	•	Aľ	NDHRA PR	ADESH			
Anantapur	39.29	6.51	19.68	6.86	14.68	7.89	5.09
Chittoor	23.95	9.92	23.39	9.59	17.00	9.66	6.48
Cuddapah	30.58	9.09	18.57	7.71	17.22	10.38	6.45
East Godavari	29.56	11.35	23.70	8.75	14.09	7.32	5.23
Guntur	31.56	10.05	18.70	6.86	16.63	9.29	6.91
Hyderabad	16.92	5.37	12.50	7.18	20.00	21.58	16.44
Karimnagar	36.34	8.08	15.53	8.68	17.68	9.51	4.18
Khammam	38.25	9.44	16.20	8.13	14.72	8.39	4.86
Krishna	25.47	10.76	20.00	8.50	18.35	9.93	6.98
Kurnool	44.38	7.50	15.66	4.66	14.28	8.23	5.28
Mahbubnagar	52.17	7.12	9.78	4.99	13.38	8.98	3.58
Medak	42.95	8.71	13.15	6.96	14.90	9.71	3.62
Nalgonda	35.06	10.71	14.52	8.48	16.34	9.63	5.27
Nellore	28.27	12.41	20.16	8.27	15.72	9.06	6.12
Nizamabad	42.42	8.33	14.47	6.66	14.75	9.41	3.96
Prakasam	36.78	8.77	17.45	6.17	16.16	8.85	5.81
Rangareddi	28.71	6.99	13.08	7.09	18.30	14.50	11.30
Srikakulam	39.63	10.34	16.20	7.96	14.57	6.97	4.33
Visakhapatnam	34.56	7.66	15.12	6.82	18.06	10.06	7.71
Vizianagaram	44.50	8.53	16.72	6.77	12.30	6.54	4.63
Warangal	35.12	8.69	13.34	8.01	17.50	11.73	5.61
West Godavari	20.16	16.33	25.36	8.87	15.64	8.17	5.47

District	Percentage of Illiteracy	Percentage of below	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher	Percentage				
	01 111001 409	primary	01 I I IIII J	01 1110410	01 500011411 y	secondary	and above				
						diploma					
	ARUNACHAL PRADESH										
Changlang	42.34	12.80	16.34	13.71	8.92	3.84	2.06				
Dibang Valley	33.44	11.54	17.48	15.08	13.43	5.64	3.39				
East Kameng	48.86	9.29	13.22	13.21	8.43	4.52	2.48				
East Siang	24.86	8.97	20.81	17.94	12.86	9.51	5.04				
Lohit	37.73	11.76	16.58	16.15	10.00	5.19	2.58				
Lower Subansiri	42.24	7.86	14.84	14.80	12.21	5.41	2.63				
Papum Pare	24.31	6.69	14.30	15.84	17.75	13.27	7.84				
Tawang	40.10	8.59	11.18	12.31	18.78	6.10	2.92				
Tirap	47.03	11.58	15.39	12.13	7.93	4.03	1.91				
Upper Siang	30.09	10.60	21.15	17.72	12.27	5.08	3.07				
Upper Subansiri	34.60	11.04	19.94	15.54	10.70	5.48	2.71				
West Kameng	31.87	9.97	15.42	13.50	17.12	8.33	3.79				
West Siang	24.88	11.24	22.36	18.29	12.10	7.12	4.00				

District	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage
	of Illiteracy	of below	of Primary	of middle	of secondary	of higher	of graduate
		primary				secondary	and above
			ASSAN	Л		uipionia	
Barpeta	38.07	10.41	10.46	14 76	15 79	6 70	3 80
Bongaigaon	35.95	11.15	12.91	16.60	15.13	5.26	3.00
Cachar	26.63	13.96	16.61	18.33	16.76	4.03	3.68
Darrang	39.20	11.21	10.82	15.93	15.11	5.13	2.60
Dhemaji	29.08	7.99	9.10	17.02	25.00	8.52	3.30
Dhubri	47.54	11.47	11.46	12.57	9.63	4.68	2.64
Dibrugarh	26.61	9.57	11.19	16.83	22.46	8.05	5.29
Goalpara	37.50	13.85	13.66	16.06	12.21	4.29	2.42
Golaghat	25.93	11.34	12.65	20.96	19.04	6.56	3.51
Hailakandi	35.12	13.10	15.63	18.92	11.71	2.82	2.69
Jorhat	18.92	9.54	10.07	18.12	27.28	10.37	5.69
Kamrup	20.30	8.59	10.87	16.40	23.37	11.12	9.33
Karbi Anglong	36.89	11.59	15.63	17.41	13.50	3.10	1.89
Karimganj	28.57	17.12	18.36	16.22	13.63	3.20	2.88
Kokrajhar	45.15	9.88	11.56	12.43	14.29	4.45	2.24
Lakhimpur	25.04	9.02	9.71	19.49	22.88	9.85	4.00
Marigaon	36.68	11.63	12.81	16.27	14.76	5.21	2.63
Nagaon	33.05	11.97	14.47	16.76	14.96	5.37	3.40
Nalbari	26.10	9.35	11.04	17.63	22.99	8.53	4.36
North Cachar Hills	24.63	9.28	15.91	19.06	22.01	5.55	3.48
Sibsagar	20.52	8.58	10.09	20.60	26.70	8.94	4.57
Sonitpur	36.85	11.02	13.05	14.92	14.76	5.88	3.52
Tinsukia	34.73	10.84	13.52	16.54	16.46	4.89	3.03

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above
		ANDA	MAN AND	NICOBA	R		
Andaman	9.98	7.78	20.22	27.15	16.68	11.48	6.71
Nicobar	15.67	6.42	22.34	27.00	15.80	8.33	4.44

District	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage
	of Illiteracy	of below	of Primary	of middle	of secondary	of higher	of graduate
		primary				dinloma	and above
			BIHA	R		uipioina	
Araria	62.74	8.42	11.29	6.11	6.40	1.35	2.24
Aurangabad	37.05	7.09	14.51	12.09	18.38	3.22	4.43
Banka	53.27	6.14	12.46	9.21	11.97	2.13	2.69
Begusarai	46.74	8.23	12.82	8.89	12.94	3.04	4.29
Bhagalpur	45.47	6.42	11.23	9.58	14.66	3.58	5.48
Bhojpur	36.37	5.38	14.37	14.62	17.33	3.25	5.41
Buxar	38.19	5.80	13.51	13.96	16.81	3.37	4.99
Darbhanga	51.32	7.83	12.50	8.04	10.76	2.50	4.50
Gaya	45.15	7.84	13.07	9.24	14.56	2.78	4.56
Gopalganj	47.71	6.51	13.76	11.88	13.37	2.15	2.46
Jamui	53.77	7.71	13.85	8.01	10.87	1.79	2.21
Jehanabad	39.60	5.99	11.66	10.18	20.46	3.57	4.94
Kaimur (Bhabua)	40.33	8.11	14.26	14.78	13.05	2.67	4.12
Katihar	61.99	6.67	10.38	7.55	6.86	1.66	3.14
Khagaria	54.20	6.77	11.33	7.79	12.43	2.21	3.06
Kishanganj	67.95	8.59	9.98	4.96	4.27	1.10	1.89
Lakhisarai	46.77	4.98	12.57	8.19	17.45	3.24	3.57
Madhepura	60.37	6.05	10.04	6.62	9.24	1.94	3.78
Madhubani	54.31	6.51	11.77	8.33	10.24	2.41	4.02
Munger	34.67	6.01	11.65	10.67	20.68	5.11	6.11
Muzaffarpur	47.10	8.17	12.40	8.73	10.72	3.06	6.61
Nalanda	41.52	5.16	11.31	8.93	16.72	4.21	7.74
Nawada	47.78	6.56	13.11	8.23	15.48	2.55	3.73
Pashchim Champaran	57.59	8.27	13.26	7.67	7.79	1.53	2.33
Patna	31.91	13.73	10.76	9.53	10.39	5.98	11.72
Purba Champaran	58.90	6.70	11.69	7.57	8.93	1.82	2.57
Purnia	62.57	6.51	9.93	6.12	6.75	1.91	4.16
Rohtas	33.28	5.88	13.83	14.30	18.98	3.90	5.91
Saharsa	57.25	6.23	10.16	7.11	10.12	2.33	4.48
Samastipur	50.40	10.24	11.85	8.82	9.40	2.81	3.66
Saran	42.22	6.25	12.84	11.86	17.16	3.07	3.52
Sheikhpura	46.42	5.30	12.03	7.54	17.80	3.46	3.98
Sheohar	61.84	7.25	11.01	6.61	8.05	1.55	2.13
Sitamarhi	58.28	6.99	12.29	7.32	8.56	1.91	2.72
Siwan	41.79	7.18	13.98	12.44	13.93	2.88	4.80
Supaul	59.36	7.86	11.06	7.05	8.10	1.74	3.08
Vaishali	44.22	6.62	12.55	10.43	16.06	3.26	3.60

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above			
CHANDIGARH										
Chandigarh	16.56	3.26	11.52	14.51	20.76	16.27	17.02			

District	Percentage of Illiteracy	Percentage of below	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher	Percentage of graduate				
	-	primary	_			secondary	and above				
						dipioma					
Bastar	53.50	12.98	10.74	10.37	5.50	4.26	2.62				
Bilaspur	29.81	12.03	17.07	15.81	10.51	7.91	6.85				
Dantewada	68.19	8.88	6.57	6.12	4.26	3.95	2.03				
Dhamtari	16.53	18.26	25.11	19.87	9.48	6.65	4.11				
Durg	15.67	12.82	20.21	19.01	14.16	11.17	6.95				
Janjgir - Champa	25.63	11.47	16.02	19.69	12.97	9.60	4.60				
Jashpur	26.39	16.60	17.63	19.30	9.69	6.43	3.95				
Kanker	16.93	29.76	18.01	17.09	8.19	6.85	3.17				
Kawardha	39.82	20.13	17.64	11.52	4.96	3.47	2.45				
Korba	32.60	9.66	15.90	16.39	11.10	8.47	5.87				
Koriya	31.35	15.59	18.15	14.96	9.22	6.37	4.37				
Mahasamund	24.68	17.23	22.04	17.09	9.03	6.09	3.84				
Raigarh	20.96	20.19	21.56	17.34	9.40	5.95	4.60				
Raipur	24.94	12.93	19.52	16.37	10.98	8.24	7.01				
Rajnandgaon	12.45	22.86	23.93	20.70	9.24	6.43	4.39				
Surguja	37.98	18.05	14.88	13.36	7.04	5.30	3.38				

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above		
DAMAN AND DIU									
Daman	14.64	7.25	16.69	20.78	18.34	16.21	6.07		
Diu	24.24	5.71	19.21	17.50	12.69	17.38	3.26		

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above		
DADRA & NAGAR HAVELI									
Dadra & Nagar Haveli	35.88	7.42	12.69	12.61	13.82	11.30	6.28		

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above			
DELHI										
Central	17.10	5.14	15.46	17.86	18.39	11.76	14.29			
East	12.42	3.32	11.74	16.27	19.83	15.19	21.21			
New Delhi	14.39	3.77	12.13	18.03	19.18	14.83	17.62			
North	16.54	3.96	13.96	17.84	19.40	13.81	14.48			
North East	18.96	4.34	15.50	20.33	19.04	11.78	10.04			
North West	17.10	3.93	14.13	17.76	19.11	13.05	14.90			
South	15.98	3.99	13.44	16.77	19.14	13.31	17.35			
South West	13.50	3.20	11.85	17.47	22.34	15.27	16.36			
West	15.19	3.72	12.57	15.83	19.91	14.40	18.38			

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above			
GOA										
North Goa	8.65	7.34	13.22	19.36	21.07	20.17	10.19			
South Goa	11.89	6.39	12.44	16.73	19.24	23.24	10.07			

## Appendix 1: Level of Educational Attainments- District wise in India

(Age Group	15 to 34)
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District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary	Percentage of graduate and above
			CUIAD	۸T		uipioma	
Ahmadahad	16.25	7 57	16.01	16 34	18 54	14 37	10.88
Amreli	26.27	12.91	23.33	13.19	14 14	7.63	2 52
Anand	20.27	11.56	19.41	14.32	16.93	11 78	5.85
Ranas Kantha	45.18	12.70	17.41	9.19	8.82	4 99	1 79
Bharuch	20.39	11.61	18.40	16.24	16.02	11 21	5.81
Bhavnagar	28.57	13 59	23.66	12.63	11.57	6 30	3.66
Dohad	51.23	6 76	9.76	10.87	11.37	7.61	2.43
Gandhinagar	18.64	9.54	15.48	16.97	16.95	14 61	7 78
Jamnagar	26.15	10.70	20.45	16.76	13.38	7 78	4 76
Junagadh	24.26	9.76	18 69	18.10	16.59	8 39	4 19
Kachchh	34.89	11.09	20.29	12.28	10.65	7.32	3.46
Kheda	21.78	12.15	18.74	14.97	17.06	10.86	4.38
Mahesana	19.16	11.13	16.79	14.97	19.21	13.52	5.16
Narmada	33.04	12.29	16.68	15.30	11.15	8.47	3.06
Navsari	17.12	9.33	14.81	17.11	20.53	14.08	6.99
Panch Mahals	33.22	8.82	14.22	14.71	15.82	9.83	3.31
Patan	34.44	13.23	17.40	10.97	12.06	8.93	2.96
Porbandar	22.16	10.27	20.50	19.93	15.15	8.27	3.72
Rajkot	17.99	8.47	19.72	18.12	19.56	10.06	6.06
Sabar Kantha	25.72	8.24	13.34	14.16	19.63	14.52	4.31
Surat	20.60	9.00	18.80	15.79	17.75	12.50	5.52
Surendranagar	32.50	11.79	19.87	15.12	11.32	6.37	3.04
The Dangs	33.96	18.21	17.63	12.86	8.97	5.67	2.71
Vadodara	24.55	9.00	15.05	14.63	15.96	12.35	8.43
Valsad	23.65	8.55	14.09	16.28	18.50	12.13	6.78

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above				
HARYANA											
Ambala	16.45	3.44	19.50	18.14	22.60	11.55	8.31				
Bhiwani	24.32	4.86	18.98	16.73	21.32	9.60	4.17				
Faridabad	25.26	4.29	14.66	16.08	19.64	11.32	8.74				
Fatehabad	36.36	6.75	20.35	13.39	13.90	6.21	3.03				
Gurgaon	30.11	4.86	15.56	14.48	17.92	9.64	7.43				
Hisar	28.64	5.36	18.08	14.57	18.87	9.45	5.01				
Jhajjar	17.95	3.67	17.03	18.71	26.55	11.32	4.77				
Jind	29.35	5.60	20.48	15.41	17.98	7.84	3.33				
Kaithal	33.30	5.23	20.18	15.36	15.44	7.04	3.44				
Karnal	24.69	4.86	20.27	16.87	18.62	9.19	5.49				
Kurukshetra	21.48	4.68	21.10	17.42	19.27	9.77	6.28				
Mahendragarh	20.25	3.67	19.67	20.51	22.37	9.47	4.05				
Panchkula	21.27	3.84	14.93	13.91	20.45	12.84	12.74				
Panipat	24.38	4.58	18.01	16.84	20.81	9.67	5.70				
Rewari	14.82	3.60	17.77	20.67	25.42	12.02	5.69				
Rohtak	17.33	4.09	16.44	16.85	24.66	12.54	8.07				
Sirsa	33.61	6.55	19.86	14.11	14.77	7.17	3.93				
Sonipat	17.99	4.13	16.48	17.55	25.91	12.36	5.56				
Yamunanagar	20.12	4.64	20.97	18.20	19.50	10.35	6.21				

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above			
HIMACHAL PRADESH										
Bilaspur	7.02	3.41	19.35	21.29	28.26	14.21	6.46			
Chamba	29.83	7.86	20.27	14.23	17.00	7.38	3.42			
Hamirpur	3.37	2.00	13.95	22.97	33.49	17.08	7.14			
Kangra	6.87	3.44	17.32	22.25	29.85	14.64	5.62			
Kinnaur	12.28	9.81	20.86	22.51	20.33	9.86	4.34			
Kullu	17.52	9.59	21.17	17.38	19.26	10.19	4.88			
Lahul & Spiti	17.42	13.72	18.39	16.72	18.73	9.68	5.33			
Mandi	11.74	5.11	18.76	18.09	28.16	12.98	5.13			
Shimla	11.26	6.27	14.71	17.34	26.94	13.76	9.71			
Sirmaur	20.50	9.31	21.88	17.53	18.09	7.98	4.70			
Solan	13.54	4.82	19.09	19.93	24.29	11.70	6.62			
Una	7.79	3.74	18.88	21.65	29.17	13.44	5.31			

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above				
JAMMU & KASHMIR											
Anantnag	47.00	5.19	6.31	15.98	15.26	6.41	3.84				
Badgam	53.88	4.82	5.22	12.92	13.18	6.28	3.68				
Baramula	49.45	4.79	6.38	15.07	14.66	5.87	3.78				
Doda	46.25	4.42	8.65	18.92	13.84	5.59	2.32				
Jammu	14.18	3.35	11.72	27.10	23.78	11.19	8.66				
Kargil	30.08	6.09	9.71	23.70	19.86	8.36	2.18				
Kathua	23.84	3.94	14.86	26.49	19.11	7.65	4.11				
Kupwara	50.22	4.61	5.76	16.00	15.31	5.31	2.79				
Leh (Ladakh)	22.16	6.45	14.08	21.20	21.87	9.52	4.66				
Pulwama	43.93	4.94	5.57	14.63	18.04	8.05	4.83				
Punch	39.08	4.41	11.45	22.62	12.32	7.08	3.02				
Rajauri	31.90	3.97	13.22	27.24	14.89	5.96	2.82				
Srinagar	32.88	4.30	4.24	13.11	23.03	12.65	9.77				
Udhampur	36.28	5.24	14.63	20.39	14.19	6.04	3.22				

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above
	·	•	JHARKH	AND			
Bokaro	31.77	5.86	11.61	14.77	17.65	10.62	7.73
Chatra	53.63	8.63	13.92	9.21	9.15	3.22	2.23
Deoghar	46.57	9.56	14.73	10.68	9.99	4.66	3.81
Dhanbad	27.62	7.38	13.54	17.01	18.02	9.54	6.89
Dumka	48.36	10.84	15.66	11.11	8.26	3.50	2.25
Garhwa	56.83	6.86	11.95	10.22	8.69	3.41	2.03
Giridih	52.31	8.87	14.47	9.89	8.75	3.21	2.50
Godda	53.96	7.52	12.27	8.95	10.17	4.34	2.75
Gumla	39.27	6.56	14.20	17.14	12.82	6.20	3.80
Hazaribag	37.45	7.33	14.29	14.21	14.52	6.91	5.29
Kodarma	43.85	9.47	16.23	10.26	11.72	4.72	3.74
Lohardaga	39.32	6.91	13.46	16.36	12.84	6.44	4.66
Pakaur	67.61	7.59	9.31	6.65	5.06	2.20	1.58
Palamu	49.99	6.89	13.07	9.81	12.25	4.77	3.23
Pashchimi	44.13	5.83	12.03	13.62	14.30	5.82	4.27
Singhbhum							
Purbi Singhbhum	26.23	6.16	12.10	14.44	19.04	11.43	10.59
Ranchi	28.84	6.77	12.73	15.19	16.70	10.22	9.53
Sahibganj	60.79	7.72	9.74	8.22	7.28	3.69	2.55

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above
			KARNAT	AKA		uipiona	
Bagalkot	39.23	9.33	14.42	8.74	14.61	9.06	4.61
Bangalore	12.42	4.82	13.40	12.55	26.81	15.46	14.53
Bangalore Rural	24.69	8.50	16.41	16.85	21.18	8.32	4.04
Belgaum	29.14	9.28	17.03	11.14	19.05	9.41	4.95
Bellary	40.20	10.45	13.40	9.73	13.29	7.85	5.08
Bidar	31.32	7.72	14.76	8.68	19.02	12.50	6.01
Bijapur	38.18	8.55	13.20	9.19	15.05	10.04	5.78
Chamarajanagar	43.19	8.27	13.81	11.72	13.30	6.24	3.48
Chikmagalur	20.07	10.08	19.42	15.25	19.98	9.88	5.32
Chitradurga	28.20	9.04	14.58	12.49	18.72	11.80	5.18
Dakshina Kannada	7.80	10.73	30.22	13.60	18.91	11.38	7.37
Davanagere	27.11	9.98	14.97	12.75	18.37	11.12	5.70
Dharwad	24.80	10.12	16.04	10.13	19.04	12.22	7.65
Gadag	30.25	11.78	15.43	10.80	16.59	10.09	5.07
Gulbarga	45.38	7.66	11.28	7.38	14.61	8.91	4.77
Hassan	22.36	8.57	17.06	18.73	18.96	9.45	4.86
Haveri	28.25	16.06	17.95	10.18	15.21	8.08	4.27
Kodagu	17.00	10.29	20.18	17.91	18.14	10.04	6.44
Kolar	28.49	7.40	15.95	16.00	18.79	8.78	4.59
Koppal	44.11	14.13	12.48	7.45	11.54	6.85	3.42
Mandya	28.66	6.79	15.76	17.01	19.31	8.23	4.25
Mysore	31.26	6.66	15.20	13.75	17.26	9.07	6.80
Raichur	49.40	11.00	11.12	6.45	11.79	6.68	3.54
Shimoga	18.74	10.49	19.02	14.91	20.28	9.99	6.58
Tumkur	22.29	8.06	16.10	17.50	20.88	10.14	5.03
Udupi	8.27	11.29	27.39	14.40	19.72	11.62	7.31
Uttara Kannada	16.35	16.99	20.68	14.30	16.60	8.94	6.14

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above					
	KERALA											
Alappuzha	1.46	2.99	9.73	30.79	30.18	16.75	8.09					
Ernakulam	1.62	3.26	11.03	24.66	28.29	19.88	11.27					
Idukki	5.36	5.23	13.80	28.94	25.69	14.78	6.19					
Kannur	1.57	3.71	15.55	29.70	28.92	13.73	6.82					
Kasaragod	5.30	8.90	20.77	28.42	23.18	9.08	4.36					
Kollam	2.48	3.32	10.34	32.15	28.23	15.38	8.09					
Kottayam	1.17	2.47	9.10	25.92	30.32	20.56	10.47					
Kozhikode	1.45	4.01	14.29	35.25	26.52	12.00	6.49					
Malappuram	2.15	6.23	19.76	41.64	20.72	6.44	3.07					
Palakkad	5.16	7.26	18.45	35.44	20.57	8.50	4.61					
Pathanamthitta	1.60	2.62	7.46	29.53	31.19	18.80	8.80					
Thiruvananthapuram	3.51	3.96	10.26	30.40	25.27	16.18	10.42					
Thrissur	1.67	3.87	13.67	26.89	28.71	16.41	8.77					
Wayanad	7.35	8.71	17.55	30.58	21.24	10.11	4.46					

(Age Group 15 to 34)

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above			
LAKSHADWEEP										
Lakshadweep	4.54	14.40	27.31	30.83	17.00	3.74	2.16			

## Appendix 1: Level of Educational Attainments- District wise in India

(Age Group 15 to 34)

District	Percentage of Illiteracy	Percentage of below	Percentage	Percentage	Percentage of secondary	Percentage of higher	Percentage
	of finteracy	primary	01 I I IIIIai y	of infutie	of secondary	secondary	and above
						diploma	
	•	M	ADHYA PF	RADESH			
Balaghat	22.54	12.56	23.28	19.61	10.89	6.82	4.30
Barwani	56.50	11.18	11.94	8.58	5.22	4.03	2.54
Betul	25.86	16.25	17.80	16.08	11.87	7.11	5.02
Bhind	24.04	8.84	16.34	24.12	14.71	7.93	4.00
Bhopal	20.60	5.52	14.03	16.81	14.90	12.57	15.53
Chhatarpur	43.38	8.34	17.75	14.22	6.95	5.46	3.90
Chhindwara	25.72	17.14	19.17	14.38	11.41	7.41	4.76
Damoh	35.11	11.01	19.71	17.18	8.51	5.03	3.45
Datia	22.51	17.57	22.54	18.75	8.92	5.84	3.86
Dewas	34.00	11.64	18.73	15.99	9.48	6.70	3.45
Dhar	41.67	12.92	16.27	12.43	7.52	5.90	3.28
Dindori	39.89	14.04	17.99	15.45	5.85	4.65	2.13
East Nimar	34.29	17.65	19.36	11.88	7.79	5.39	3.63
Guna	37.22	19.35	17.55	11.42	6.26	4.47	3.73
Gwalior	27.37	5.84	14.25	16.94	13.86	11.25	10.46
Harda	27.84	18.67	21.68	14.20	8.19	5.11	4.31
Hoshangabad	23.75	11.39	18.84	17.79	12.77	7.92	7.53
Indore	20.35	6.21	15.25	17.38	15.99	11.88	12.90
Jabalpur	18.84	7.08	16.87	19.94	16.49	10.88	9.89
Jhabua	58.94	14.75	9.20	7.13	4.22	3.43	2.32
Katni	31.98	10.15	18.58	17.62	10.28	7.03	4.35
Mandla	34.40	14.63	18.95	14.55	8.11	5.66	3.70
Mandsaur	24.29	21.10	23.06	14.65	7.95	5.54	3.41
Morena	32.93	7.82	16.32	20.11	12.04	7.01	3.76
Narsimhapur	15.50	21.71	20.49	18.21	12.17	7.65	4.26
Neemuch	29.57	14.46	21.59	14.53	8.74	6.60	4.50
Panna	32.58	20.12	16.40	15.10	7.38	5.42	2.91
Raisen	20.98	19.75	21.46	18.28	9.76	5.46	4.30
Rajgarh	41.96	15.36	15.69	12.40	6.97	4.40	3.19
Ratlam	26.94	22.35	19.01	13.26	7.76	6.09	4.56
Rewa	30.93	4.80	11.85	19.57	14.67	12.59	5.59
Sagar	27.19	10.00	21.82	18.57	10.57	6.45	5.38
Satna	30.25	7.92	16.77	19.43	11.97	8.77	4.88
Sehore	30.86	13.73	20.34	17.02	8.70	5.26	4.06
Seoni	27.77	15.66	22.89	15.47	8.62	5.69	3.89
Shahdol	35.96	11.13	15.58	16.34	9.50	7.19	4.28
Shajapur	21.29	30.18	22.22	12.89	6.25	4.39	2.77
Sheopur	53.16	10.98	13.97	10.38	5.12	4.02	2.37
Shivpuri	38.52	19.56	16.33	11.77	6.06	4.65	3.08
Sidhi	44.92	11.40	12.69	13.69	8.02	6.10	3.03
Tikamgarh	40.99	9.03	16.73	16.49	7.69	6.37	2.68
Ujjain	23.34	19.19	20.14	14.52	9.56	7.26	5.98

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above				
	MADHYA PRADESH										
Umaria	36.47	13.52	16.79	15.62	8.26	6.03	3.30				
Vidisha	34.30	13.28	21.14	14.30	7.28	4.87	4.82				
West Nimar	31.62	20.68	19.21	12.68	7.02	5.59	3.20				

District	Percentage of Illiteracy	Percentage of below	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher	Percentage of graduate
		primary				secondary diploma	and above
	1	ľ	MAHARAS	HTRA	I		
Ahmadnagar	14.39	12.85	17.10	16.13	21.36	11.49	6.68
Akola	11.00	12.88	15.78	19.96	20.95	12.94	6.49
Amravati	9.82	12.86	14.77	21.01	20.88	13.21	7.44
Aurangabad	19.58	10.17	14.97	14.66	20.63	11.77	8.20
Bhandara	8.99	12.36	11.61	28.20	20.86	11.82	6.15
Bid	21.07	13.07	14.63	13.67	18.88	11.49	7.19
Buldana	16.11	16.79	17.55	18.07	17.67	9.17	4.64
Chandrapur	16.01	10.77	13.83	23.04	18.91	11.70	5.74
Dhule	20.56	12.95	13.57	13.54	19.21	13.99	6.18
Gadchiroli	32.96	11.27	11.69	18.28	14.24	8.34	3.23
Gondiya	10.01	14.89	14.34	25.13	20.38	10.70	4.56
Hingoli	26.56	16.59	18.50	14.36	12.61	7.39	3.99
Jalgaon	18.85	13.00	16.01	15.62	19.35	11.79	5.38
Jalna	28.86	15.77	17.72	13.42	13.77	6.58	3.89
Kolhapur	11.54	8.70	17.33	16.98	24.39	12.88	8.18
Latur	18.15	10.74	15.21	16.41	20.56	12.47	6.47
Mumbai	10.29	8.01	16.53	18.42	21.64	13.84	11.27
Mumbai (Suburban)	10.02	6.29	16.83	18.00	22.11	13.85	12.90
Nagpur	7.96	9.64	12.34	23.67	20.69	15.40	10.31
Nanded	25.29	14.03	14.56	12.00	16.10	11.57	6.46
Nandurbar	40.40	12.28	9.68	9.89	13.31	10.31	4.13
Nashik	18.59	10.26	15.59	16.32	20.20	11.85	7.19
Osmanabad	19.54	10.46	16.35	16.30	20.27	10.72	6.36
Parbhani	26.48	14.18	16.64	14.05	14.60	8.62	5.43
Pune	12.08	7.61	15.25	16.91	21.95	14.59	11.61
Raigarh	14.46	10.80	18.49	21.42	18.24	9.56	7.03
Ratnagiri	11.96	11.74	27.55	21.18	16.03	6.96	4.58
Sangli	12.17	9.26	18.06	16.76	24.03	12.08	7.65
Satara	10.36	9.51	16.93	18.52	25.39	11.88	7.41
Sindhudurg	7.88	8.17	21.74	25.50	21.00	9.93	5.76
Solapur	19.37	13.49	19.33	16.25	17.28	8.93	5.34
Thane	15.92	8.17	15.41	16.16	21.03	12.62	10.69
Wardha	8.81	11.02	12.43	22.21	22.73	15.71	7.09
Washim	18.73	14.49	16.85	16.04	17.89	11.37	4.63
Yavatmal	17.78	15.35	16.33	18.69	16.98	9.89	4.98

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above			
MANIPUR										
Bishnupur	42.49	10.97	10.12	13.70	9.52	6.23	6.95			
Chandel 09	51.44	10.35	12.27	11.02	8.11	3.98	2.81			
Churachandpur	38.97	17.54	15.88	12.03	8.67	3.83	3.07			
Imphal East	35.18	10.72	11.21	15.97	11.39	7.15	8.36			
Imphal West	29.96	9.48	9.74	15.94	12.66	9.21	12.98			
Senapati	48.56	12.16	14.08	11.96	7.71	3.28	2.24			
Tamenglong	49.04	11.64	14.50	10.81	8.48	3.27	2.25			
Thoubal	44.50	10.99	11.06	14.22	8.59	5.47	5.16			
Ukhrul	37.81	10.77	15.33	15.71	10.59	5.52	4.26			
Adilabad	42.92	9.19	13.27	7.30	15.34	8.84	3.14			

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above			
MEGHALAYA										
East Garo Hills	31.16	22.48	20.71	14.14	8.55	2.09	0.88			
East Khasi Hills	17.97	18.35	14.72	15.63	15.52	9.85	7.94			
Jaintia Hills	43.36	22.11	11.76	8.85	8.60	3.19	2.13			
Ri Bhoi	26.38	31.74	17.54	10.80	8.81	2.95	1.77			
South Garo Hills	34.41	18.92	19.86	13.28	11.04	1.78	0.70			
West Garo Hills	40.47	14.53	15.23	11.60	12.63	3.67	1.88			
West Khasi Hills	25.49	32.50	18.55	11.92	7.38	2.59	1.57			

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above			
MIZORAM										
Aizawl	2.11	11.26	23.98	31.53	15.04	8.68	7.39			
Champhai	4.53	22.81	33.26	22.86	9.37	3.90	3.26			
Kolasib	6.53	19.22	29.27	27.05	9.81	4.63	3.48			
Lawngtlai	29.16	25.57	18.02	13.79	8.93	2.58	1.94			
Lunglei	12.70	17.71	25.70	23.77	11.53	4.95	3.65			
Mamit	16.63	19.67	29.48	21.74	7.08	2.91	2.48			
Saiha	8.58	19.88	28.76	22.63	13.86	3.70	2.57			
Serchhip	2.13	16.51	34.78	29.38	9.69	3.65	3.85			

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above				
NAGALAND											
Dimapur	18.68	7.27	15.74	18.96	20.29	11.86	7.15				
Kohima	18.58	8.21	15.46	19.48	18.70	11.90	7.66				
Mokokchung	10.63	5.52	15.41	24.67	23.00	14.04	6.71				
Mon	50.97	8.38	17.49	13.07	7.57	1.75	0.77				
Phek	21.65	7.67	22.28	20.96	15.50	7.63	4.29				
Tuensang	42.23	6.22	14.91	16.47	13.65	4.89	1.63				
Wokha	14.24	5.76	17.13	22.50	21.08	13.13	6.15				
Zunheboto	23.83	6.84	15.82	19.93	18.10	10.79	4.66				

District	Percentage of Illiteracy	Percentage of below	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher	Percentage of graduate
		primary				secondary diploma	and above
			ORISS	A		u1)10111	
Anugul	25.75	13.30	18.02	13.05	15.03	8.57	6.28
Balangir	38.59	11.79	16.44	10.45	12.26	6.17	4.31
Baleshwar	22.11	10.88	19.21	16.10	15.87	8.64	7.20
Bargarh	28.27	13.62	21.51	12.29	13.69	6.29	4.33
Baudh	38.51	18.55	18.26	11.24	7.06	3.76	2.63
Bhadrak	19.29	10.63	20.17	16.91	17.29	8.52	7.19
Cuttack	15.81	9.61	16.95	18.04	19.35	10.27	9.97
Debagarh	33.37	11.38	18.44	11.02	13.10	7.88	4.80
Dhenkanal	23.57	13.74	19.07	14.79	15.01	7.82	5.99
Gajapati	56.02	9.69	12.23	7.44	8.30	3.71	2.60
Ganjam	33.73	13.70	19.02	10.17	12.52	6.31	4.56
Jagatsinghapur	11.80	8.18	16.96	15.53	27.91	11.39	8.22
Jajapur	21.24	8.89	16.18	17.01	19.29	9.81	7.59
Jharsuguda	21.74	12.13	18.28	14.18	18.08	9.70	5.89
Kalahandi	49.37	11.52	13.36	9.71	9.14	4.16	2.74
Kandhamal	44.02	12.42	14.26	12.76	9.41	4.15	2.99
Kendrapara	14.83	10.05	17.44	19.12	21.66	9.60	7.30
Kendujhar	34.80	9.08	13.44	15.67	14.37	6.91	5.73
Khordha	13.98	9.11	16.45	16.76	17.76	11.55	14.39
Koraput	62.44	7.60	8.49	6.50	7.56	4.09	3.32
Malkangiri	69.43	6.46	8.73	6.83	4.84	2.24	1.48
Mayurbhanj	41.04	7.67	11.95	15.01	12.75	6.50	5.07
Nabarangapur	64.57	11.25	9.27	6.83	4.86	1.95	1.25
Nayagarh	21.26	15.15	22.25	15.36	14.16	6.53	5.29
Nuapada	53.96	9.45	11.27	10.87	8.85	3.36	2.24
Puri	13.85	12.83	21.10	21.07	15.12	8.35	7.67
Rayagada	61.81	7.78	9.63	6.67	7.38	3.91	2.82
Sambalpur	26.62	12.59	17.64	12.82	14.68	8.65	7.00
Sonapur	30.43	15.09	19.87	13.59	11.74	5.56	3.71
Sundargarh	28.22	7.85	14.09	14.56	17.54	10.68	7.06

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above		
PONDICHERRY									
Karaikal	8.17	5.38	20.24	23.07	20.55	13.98	8.60		
Mahe	1.35	3.57	14.62	25.68	30.95	15.41	8.42		
Pondicherry	Pondicherry         10.98         4.72         16.58         21.51         20.40         14.31         11.50								
Yanam	18.62	7.83	19.85	15.21	17.90	11.61	8.99		

District	Percentage of Illiteracy	Percentage of below	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher	Percentage of graduate
		primary				secondary	and above
						diploma	
			PUNJA	B			
Amritsar	26.35	3.71	13.85	13.91	24.79	11.93	5.43
Bathinda	30.46	4.30	16.19	14.67	20.01	9.45	4.90
Faridkot	29.93	3.98	15.87	15.20	20.02	10.28	4.70
Fatehgarh Sahib	15.95	3.50	18.91	19.63	25.11	12.00	4.88
Firozpur	32.55	4.51	16.46	15.35	18.83	8.58	3.70
Gurdaspur	16.17	2.92	14.31	17.57	29.69	14.17	5.15
Hoshiarpur	8.73	3.08	15.89	20.66	30.31	15.59	5.72
Jalandhar	13.13	3.28	14.84	17.43	27.27	14.96	9.07
Kapurthala	15.94	3.48	14.77	17.85	27.91	13.56	6.45
Ludhiana	17.45	3.98	15.18	16.79	25.52	12.92	8.16
Mansa	40.44	4.33	16.07	13.97	15.88	6.57	2.72
Moga	27.02	4.46	17.25	16.12	21.61	10.12	3.41
Muktsar	33.95	4.66	16.05	15.16	18.53	7.98	3.67
Nawanshahr	10.84	4.00	19.41	20.38	27.53	13.54	4.28
Patiala	21.73	3.65	16.83	17.24	22.61	11.12	6.80
Rupnagar	12.71	3.08	16.41	18.69	26.00	14.75	8.32
Sangrur	30.49	3.88	17.00	15.24	20.38	9.06	3.94

District	Percentage of Illiteracy	Percentage of below	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher	Percentage of graduate
		primary				secondary diploma	and above
			RAJASTI	HAN	I	upromu	
Ajmer	29.95	10.26	16.43	15.93	13.12	6.96	7.35
Alwar	32.47	8.27	16.52	18.70	13.13	6.26	4.64
Banswara	54.67	10.20	10.83	10.85	6.81	3.76	2.87
Baran	36.46	12.42	18.37	15.03	10.10	4.15	3.47
Barmer	28.72	33.44	16.00	10.80	6.06	2.81	2.16
Bharatpur	31.52	18.25	14.99	17.15	10.01	4.77	3.30
Bhilwara	42.46	11.40	15.35	12.25	9.24	4.80	4.49
Bikaner	39.87	10.69	15.35	13.45	10.51	5.49	4.65
Bundi	39.54	13.58	15.64	15.11	8.45	4.17	3.50
Chittaurgarh	40.52	12.63	17.26	13.19	8.36	4.28	3.76
- Churu	25.07	30.67	16.81	13.54	8.33	3.52	2.07
Dausa	31.31	13.58	14.30	17.71	12.48	6.08	4.54
Dhaulpur	35.11	19.21	16.85	14.85	7.73	3.83	2.42
Dungarpur	49.66	9.36	13.97	12.55	7.48	4.15	2.82
Ganganagar	30.25	11.51	19.64	15.90	12.79	5.72	4.20
Hanumangarh	32.14	16.12	18.37	14.62	11.22	4.78	2.76
District - Jaipur	24.30	10.28	14.85	17.57	15.26	8.00	9.74
Jaisalmer	40.48	18.05	14.50	11.33	8.42	4.16	3.05
Jalor	48.73	15.63	16.35	10.76	4.96	1.97	1.60
Jhalawar	37.03	19.19	16.18	12.98	7.94	3.53	3.15
Jhunjhunun	18.03	23.91	17.46	17.99	13.23	5.97	3.42
Jodhpur	38.02	8.63	15.24	14.81	11.62	5.91	5.76
Karauli	29.86	24.35	15.56	14.27	9.05	4.15	2.77
Kota	21.26	12.09	16.91	17.66	15.53	8.59	7.96
Nagaur	37.83	14.49	16.75	14.65	9.35	4.07	2.86
Pali	38.80	9.88	19.48	14.86	9.56	3.94	3.49
Rajsamand	37.52	12.78	18.98	14.03	9.35	4.26	3.08
Sawai Madhopur	38.07	9.79	13.85	16.95	10.86	5.57	4.92
Sikar	21.76	15.59	19.73	19.08	13.51	6.17	4.16
Sirohi	39.68	14.68	15.57	13.57	9.25	3.82	3.42
Tonk	42.57	10.18	13.92	14.98	9.46	4.78	4.13
Udaipur	35.64	17.19	14.74	12.16	9.45	5.42	5.42

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above		
SIKKIM									
East	16.32	13.68	21.90	17.81	15.45	9.05	5.75		
North	22.93	16.46	20.92	17.23	14.08	5.93	2.30		
South	21.79	19.13	24.69	15.77	10.56	4.93	3.12		
West	28.38	16.45	24.97	15.67	8.28	4.20	2.02		

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary	Percentage of graduate and above
						diploma	
	•		TAMIL N	ADU			
Ariyalur	26.70	8.53	18.91	16.25	16.37	9.45	3.79
Chennai	10.46	5.34	13.28	15.82	23.38	15.06	16.66
Coimbatore	13.47	32.74	14.78	12.58	12.97	9.00	4.46
Cuddalore	20.69	9.70	17.61	17.48	19.30	10.40	4.81
Dharmapuri	29.81	7.27	18.78	13.82	16.82	9.42	4.07
Dindigul	20.41	11.12	21.88	18.18	15.31	9.04	4.06
Erode	21.06	10.77	21.93	15.22	15.62	10.47	4.92
Kancheepuram	15.73	16.18	17.63	17.80	16.29	9.72	6.64
Kanniyakumari	4.07	18.06	17.86	17.21	20.97	15.55	6.29
Karur	18.79	8.82	21.48	17.39	17.45	10.31	5.76
Madurai	14.62	22.32	17.56	15.95	14.74	9.66	5.15
Nagapattinam	12.98	19.31	20.95	19.57	15.03	8.76	3.41
Namakkal	19.02	9.57	20.47	14.09	17.13	12.96	6.76
Perambalur	22.40	8.91	19.00	17.19	17.50	10.37	4.62
Pudukkottai	17.76	19.40	19.40	17.25	15.05	8.13	3.01
Ramanathapuram	16.12	9.36	24.17	19.96	16.82	9.38	4.19
Salem	24.40	7.42	20.21	14.92	16.33	10.84	5.88
Sivaganga	15.76	7.79	20.49	21.45	18.36	10.64	5.51
Thanjavur	14.26	28.69	15.73	16.34	13.31	7.97	3.70
The Nilgiris	11.87	6.04	16.64	18.76	25.20	14.93	6.56
Theni	19.28	32.27	14.35	13.97	10.90	6.64	2.59
Thiruvallur	15.69	6.32	15.41	18.04	22.89	12.84	8.80
Thiruvarur	12.33	12.76	22.47	21.82	18.20	9.11	3.31
Thoothukkudi	10.81	19.58	23.48	18.33	13.61	9.44	4.75
Tiruchirappalli	12.73	6.55	18.36	18.82	20.20	14.49	8.83
Tirunelveli	14.79	15.92	24.88	18.48	13.15	8.96	3.83
Tiruvannamalai	22.70	24.12	16.73	14.36	13.28	6.90	1.91
Vellore	18.13	7.99	21.45	19.50	18.94	9.84	4.15
Viluppuram	27.67	8.91	20.08	16.46	16.32	7.66	2.90
Virudhunagar	18.83	24.50	20.72	13.27	11.09	8.37	3.22

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above		
TRIPURA									
Dhalai	32.52	13.18	23.10	18.11	8.47	2.07	2.54		
North Tripura	21.50	17.44	26.29	18.78	10.03	2.47	3.50		
South Tripura	22.37	15.98	26.19	21.52	7.51	2.38	4.04		
West Tripura	15.76	13.22	26.50	24.01	11.41	3.55	5.55		

## Appendix 1: Level of Educational Attainments- District wise in India

(Age Group 15 to 34)

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary dinloma	Percentage of graduate and above	
UTTARKHAND								
Almora	14.76	4.81	18.12	29.19	16.11	10.86	6.15	
Bageshwar	19.03	6.29	18.57	29.26	13.46	9.62	3.76	
Chamoli	14.39	4.79	16.64	27.27	17.41	10.87	8.61	
Champawat	23.39	5.89	20.17	24.21	12.27	8.88	5.19	
Dehradun	15.58	4.99	11.25	18.30	18.68	15.42	15.75	
Garhwal	10.28	3.29	13.83	27.69	20.88	14.85	9.17	
Hardwar	32.20	7.11	14.12	16.22	12.81	9.32	8.19	
Nainital	16.28	5.43	14.52	20.61	16.87	14.04	12.25	
Pithoragarh	13.75	5.35	17.73	27.91	16.56	11.91	6.78	
Rudraprayag	14.88	4.17	17.28	30.04	15.44	10.95	7.21	
Tehri Garhwal	24.35	4.14	14.18	22.45	15.78	11.73	7.37	
Udham Singh Nagar	31.08	7.51	15.16	17.35	12.96	9.02	6.91	
Uttarkashi	26.93	5.25	13.07	23.16	13.02	10.66	7.89	

District	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage
	of Illiteracy	of below	of Primary	of middle	of secondary	of higher	of graduate
		primary				secondary	and above
		T.	TTAD DD	DESU		uipionia	
Agra	34.68	T 02	$\frac{11}{1160}$	15.62	15.37	0.38	6.22
Alicerh	34.08	5.61	11.00	17.62	13.37	9.30	5.61
Allgan	37.43	5.01	11.30	17.08	13.90	0.17	3.01 9.97
Ananabau Ambadhan Nasan	34.43	0.41	10.04	13.23	14.08	7.00	0.0/ 5.49
Ambedkar Nagar	34.34	0.05	15.59	18.80	11./5	7.99	5.48
Auraiya	23.05	4.34	13.49	26.73	16.91	9.67	5.81
Azamgarn	37.39	6.93	14.56	15.50	13.03	8.09	4.50
Bagnpat	27.38	5.18	12.04	19.98	17.98	11.80	5.62
Bahraich	63.20	7.72	10.29	7.99	5.07	3.42	2.31
Ballia	35.81	4.45	9.23	15.14	17.50	12.66	5.20
Balrampur	62.65	7.55	11.30	8.25	5.17	3.14	1.93
Banda	41.40	7.00	13.95	17.31	9.33	6.31	4.70
Barabanki	48.64	7.04	13.09	14.80	8.40	5.33	2.68
Bareilly	51.08	6.21	10.49	14.13	8.21	5.32	4.53
Basti	41.94	6.64	13.31	15.52	10.94	7.70	3.94
Bijnor	37.91	7.86	15.97	17.32	10.04	6.38	4.50
Budaun	61.69	4.86	9.77	11.99	5.83	3.60	2.25
Bulandshahr	35.76	6.43	13.20	19.15	13.13	7.78	4.54
Chandauli	35.89	4.90	10.74	17.11	15.50	10.44	5.40
Chitrakoot	30.01	21.28	14.16	15.17	9.37	6.34	3.68
Deoria	35.49	5.11	11.01	16.65	16.39	10.54	4.82
Etah	41.45	5.93	12.79	16.20	12.77	6.98	3.88
Etawah	23.94	4.76	13.92	25.47	17.02	9.06	5.83
Faizabad	38.07	5.35	14.05	16.89	12.13	8.05	5.44
Farrukhabad	35.93	6.50	13.60	18.64	13.92	7.03	4.37
Fatehpur	37.79	6.64	14.22	18.24	11.92	7.27	3.90
Firozabad	31.35	6.08	14.14	19.05	15.96	8.49	4.91

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary	Percentage of graduate and above
		T.	TTAR PR	ADESH		ulpionia	
Gautam Buddha Nagar	26.45	5.07	12.22	19.58	17.06	9.65	9.96
Ghaziabad	25.37	4.81	12.61	18.63	17.49	11.12	9.95
Ghazipur	34.86	4.87	10.30	16.93	16.65	10.94	5.45
Gonda	53.34	6.63	12.37	11.96	7.79	5.05	2.84
Gorakhpur	35.46	4.93	11.96	17.27	13.82	9.96	6.59
Hamirpur	37.17	5.44	13.97	21.26	11.07	6.62	4.47
Hardoi	45.85	6.42	14.70	16.70	8.39	5.19	2.73
Hathras	34.18	5.70	12.32	18.52	15.03	9.27	4.98
Jalaun	30.24	5.46	12.91	20.29	15.76	9.68	5.64
Jaunpur	35.89	6.66	12.82	16.85	13.40	9.19	5.18
Jhansi	30.75	5.87	13.39	20.04	14.43	8.42	7.11
Jyotiba Phule Nagar	47.44	5.69	13.63	15.79	8.81	5.30	3.33
Kannauj	33.25	5.29	13.74	22.73	14.17	7.06	3.76
Kanpur Dehat	27.26	5.76	12.67	24.99	16.02	9.20	4.10
Kanpur Nagar	20.66	5.69	10.55	18.69	18.93	13.26	12.18
Kaushambi	51.04	6.08	11.04	12.27	10.05	7.20	2.32
Kheri	49.19	10.46	13.66	14.03	6.40	3.59	2.64
Kushinagar	47.64	5.87	12.33	13.74	10.95	6.23	3.23
Lalitpur	48.86	6.47	15.31	15.91	6.60	3.68	3.17
Lucknow	27.19	5.18	10.62	15.64	14.73	12.54	14.08
Maharajganj	49.26	8.51	13.39	12.84	8.38	5.14	2.46
Mahoba	42.96	6.30	14.77	18.28	8.66	5.20	3.83
Mainpuri	28.36	4.61	13.71	23.97	16.48	8.74	4.12
Mathura	34.99	6.08	11.80	17.48	14.68	9.50	5.47
Mau	32.11	7.00	12.75	14.93	16.14	11.55	5.48
Meerut	29.65	5.06	13.12	17.72	15.62	10.35	8.48
Mirzapur	41.87	5.41	11.63	15.56	11.65	8.99	4.89
Moradabad	53.14	5.91	10.56	12.92	8.15	5.26	4.05
Muzaffarnagar	33.62	8.80	15.07	17.08	12.58	7.72	5.09
Pilibhit	48.98	7.32	13.40	15.44	7.67	4.38	2.79
Pratapgarh	36.81	5.43	12.98	17.58	14.16	8.71	4.32
Rae Bareli	41.34	6.06	12.88	18.20	11.05	6.92	3.53
Rampur	59.42	6.96	9.69	10.52	6.47	3.98	2.93
Saharanpur	33.88	9.68	16.50	15.87	11.51	7.04	5.35
Sant Kabir Nagar	43.54	7.41	16.25	14.50	9.62	5.96	2.72
Sant Ravidas Nagar	40.46	5.61	12.86	14.75	13.77	8.17	4.39
Shahjahanpur	49.63	7.35	13.00	14.54	7.99	4.73	2.75
Shrawasti	63.98	7.61	9.86	9.05	4.84	3.08	1.56
Siddharthnagar	54.10	8.41	14.18	10.09	6.90	4.38	1.92
Sitapur	49.78	8.72	13.49	14.58	6.58	4.16	2.68
Sonbhadra	47.80	5.94	11.92	13.02	9.58	6.86	4.89
Sultanpur	38.48	5.82	14.76	18.94	11.05	6.60	4.33
Unnao	40.90	6.20	14.47	19.02	10.15	5.88	3.37
Varanasi	30.03	6.85	11.91	15.22	15.40	11.77	8.82

District	Percentage of Illiteracy	Percentage of below primary	Percentage of Primary	Percentage of middle	Percentage of secondary	Percentage of higher secondary diploma	Percentage of graduate and above
	·	V	VEST BE	NGAL		· · ·	
Bankura	31.73	15.99	16.34	17.98	10.34	3.90	3.71
Barddhaman	26.10	15.68	17.27	16.56	12.43	5.93	6.02
Birbhum	36.02	16.82	15.67	14.77	9.43	3.65	3.63
Dakshin Dinajpur	34.10	20.28	15.82	14.99	8.89	3.00	2.90
Darjiling	22.98	13.89	16.31	18.12	14.74	7.26	6.67
Haora	18.18	16.39	22.28	18.21	12.08	6.45	6.37
Hugli	20.63	15.72	21.43	17.83	11.63	6.08	6.67
Jalpaiguri	34.47	17.15	17.14	15.17	9.00	3.84	3.22
Koch Bihar	30.94	19.45	19.11	15.16	9.24	3.40	2.69
Kolkata	17.03	9.67	14.29	17.36	16.18	10.60	14.80
Maldah	47.72	14.77	13.46	11.80	7.30	2.68	2.24
Medinipur	20.29	21.17	21.89	18.39	9.99	4.43	3.83
Murshidabad	43.26	15.25	16.60	11.84	7.50	3.00	2.53
Nadia	29.40	15.94	19.96	16.51	9.65	4.45	4.08
North Twenty Four Parganas	17.64	14.74	18.91	19.21	13.33	7.54	8.60
Puruliya	39.74	14.14	13.21	16.61	9.47	3.54	3.28
South Twenty Four Parganas	26.29	21.56	20.31	15.69	8.23	3.98	3.91
Uttar Dinajpur	51.68	14.93	10.54	11.28	6.80	2.58	2.13

Source: Computed from Census 2001

Sr. No.	Indicators	Coefficient of Variation	Our Choice
1	Percentage Girls enrolment	2.76	
2	Pupil Teacher Ratio (PTR)	46.73	Y
3	Average no. of teachers per school	56.91	Y
4	Percentage of Enrolment in Govt. Schools	16.84	
5	Percentage of Single-classroom schools	111.98	
6	Percentage Single-teacher schools	78.30	
7	Percentage Schools with Student Class room Ratio (for All Schools including primary, secondary and Higher secondary)	118.56	
8	Percentage of Schools with Pre-primary	94.88	
9	Percentage Schools with common toilets	54.90	Y
10	Percentage Schools with girls toilet	91.18	Y
11	Percentage of schools with ramp	120.49	
12	Percentage Enrolment in single-teacher schools	92.82	
13	Percentage of female teacher schools(tch>=2)	52.61	
14	Percentage Enrolment in schools without building	98.40	
15	Percentage Enrolment in schools without blackboard	395.61	
16	Percentage schools with drinking water facility	22.10	
17	Percentage schools with <50 students	58.00	
18	Percentage schools with PTR>100	176.79	
20	Percentage schools established since 1994	64.68	

### **Appendix 2: List of Indicators for Primary Schools**

#### Source: Mehta 2007

#### **Discussion Papers in the Series**

- DP 1/2007 Indian Labour Market in Transition: Setting the Tone for Employability
- DP 2/2007 Employability: Concepts, Indicators and practices
- *DP 3/2007* Jobless growth to inclusive growth: *Employability as an alternative Planning strategy*
- DP 4/2007 A social enterprise for employability enhancement: A business plan
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The purpose of the Discussion Paper is to generate dialogue of ideas among similarly thinking scholars, policy makers, employers and representatives of employee groups.

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