

**TRENDS AND DETERMINANTS OF SCHOOL
EDUCATION IN RAJSATHAN : A SPATIO -
TEMPORAL ANALYSIS**

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CERTIFICATE

I, **Kailash Chandra Bishnoi**, certify that the dissertation entitled “**TRENDS AND DETERMINANTS OF SCHOOL EDUCATION IN RAJASTHAN : A SPATIO TEMPORAL ANALYSIS**” submitted for the degree of Master of Philosophy is my bonafide work and may be placed before the examiners for evaluation.

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CHAPTER - I

INTRODUCTION

“The destiny of India is being shaped in her classrooms.”
(Kothari Commission Report, 1966)

1.1 The optimism embedded in the above statement finds an apt reflection today, at the birth of a new millennium when India aspires to lead the world as a ‘Knowledge Society’ in near future. The time, required to achieve this destiny will depend upon the strength of her foundation to provide quality education to each and every child of the country. In 2007, India is going to celebrate the 60th anniversary of her Independence. It is imperative therefore, at this juncture, to assess the work done so far to fulfil the commitments that we made in the famous ‘Tryst with Destiny’.

It is well laid out as one of our constitutional objectives to provide ‘free and compulsory education’ to all the children of 6 – 14 years, but the goal of ‘Universalisation of Elementary Education’ (UEE) still eludes this nation. The pace of progress in this direction has not remained universal across India. Sharp regional and social disparities in educational attainment are the reality of India. India can not move forward and become one of the leaders as a knowledge society, if a substantial number of her children are still out of school. A study of enrolment therefore, must highlight the patterns and issues associated with imbalanced educational development. The present dissertation is an attempt in this direction to explore the spatial patterns and processes of school enrolment across the state of Rajasthan.

A spatial perspective to understand the developmental problems is essential, because most of the problems of development in India are intertwined with the complex geographical / regional realities. Pt. Nehru, in the 1950s had pointed out that the elimination of ignorance, of illiteracy, of remediable poverty, of preventable disease, and of needless inequalities in opportunities must be seen as objectives that are valued for their own sake.

But, in the absence of spatial and regional concern in the research underlying the policy – making process in the initial years after Independence, most of these problems are still persisting in India.

A geographer's major concern is the spatial variation of a particular phenomenon. Production of geographical knowledge has always involved claims to know 'space' in a particular way. There has always been an attempt to fix the location of events, places and phenomena on the surface of the earth and to represent these on maps. It was the 1970s that saw a major redirection of human geography towards such welfare problems as poverty, hunger, crime racial discrimination and access to public services (e.g. health and Education.) It highlighted that 'development or underdevelopment has its own geography'.

Social reality such as Education includes an emphasis on understanding 'the patterns which arise from the use social groups make of space as they see it, and the process involved in making and changing such patterns. The basic focus of such an approach in analyzing the developmental problems, as originally formulated by Smith (1977),¹ is on 'who gets what, where and how? The 'who' refers to the population of the areas under review, subdivided into groups on the basis of class, race, gender or other relevant characteristics, the 'what' refers to the various goods (and bads) endured by the population, in the form of commodities, services, social relationships and so on, the 'where' reflects the fact that living standards differ according to area of residence, the 'how' refers to the process where by the observed differences arise. Therefore such a geographical approach was bound to be descriptive in its formative phase. But later, the emphasis shifted to more process – oriented work on the question of how inequality arises. Thus it requires a holistic social sciences perspective, incorporating economic, social and political factors.

This change in geographical approach occurred along with the recognition of the fact that development can not be equated with economic

¹ Smith, D.M. (1977), Human Geography a Welfare approach

growth alone, rather it has to be an all-inclusive criteria of the well-being of a nation/ region/society as a whole as well as of its constituent parts. As an important milestone, the concept of development was enriched tremendously with the incorporation of Human Development Indicators in the early 1990s. Over the years, aspects pertaining to human development viz. education, health and economic prosperity have grown in their stature in ascertaining well - being of a region.

Education plays a vital role in the life of individuals as well as society as a whole. The liberating potential of education has been extensively discussed by Freire and other scholars.² Amartya Sen³ rightly remarks literacy as an essential tool of self-defence in a society where social interaction includes the written media. Basic education is a catalyst of social change and is widely perceived by members of socially or economically disadvantaged groups as the most promising means of upward mobility for their children. It assumes special significance in the context of a quasi-traditional or transitional society like that of India. In the context of female education in India, social scientists in recent years have developed a large body of empirical evidence demonstrating how education can promote greater capabilities such as freedom to participate in political and economic process; use new technologies; project one self against exploitation of all sorts; exercise personal mobility; attain higher social status; and increase child and maternal well-being.

Since education is not merely a means of livelihood for an individual, rather it expands his/ her freedom to lead the life he/ she has reason to value and adds to his/ her elementary capabilities, therefore its deprivation in a region is likely to result in denial of a set of opportunities to its inhabitants. Underdevelopment of education reflects not only in terms of subdued human development resources, but also may force a region to remain trapped in the vicious circle of poverty. If the state of Rajasthan has

² Freire, P. 91972), *Peadogogy of the Oppressd*, pp 42-46

³ Dreze, Jean and Sen, Amartya (2002), '*India Development and Participation*', pp. 143.

remained confined in the group of BIMARU states even after more than five decades of planning, the 'low base – low growth' characteristic of education in Rajasthan has been a crucial factor behind this sad state of affairs. Regional disparities add to further complications. The present study tends to explore the spatial patterns and processes of literacy and enrolment by which the problem regions could be identified, obstacles could be recognized, strategies for their elimination could be laid out, and it could be known whether we are already on course in remedying deficiencies or not.

1.2 OBJECTIVES

The present research work is primarily designed to identify the spatial patterning of literacy and enrolment in Rajasthan. The specific objectives of the study are as follows:-

1. To take the stock of existing literacy scenario in the state.
2. To analyze the spatial patterns of enrolment ratios at various levels of schooling.
3. To study the pattern of change in enrolment ratios between 6th and 7th All India Education Surveys.
4. To examine the (a) Rural and urban disparities (b) Gender and social disparities.
5. To identify the determinants of enrolment.
6. To suggest strategies for a balanced educational development of the state.

1.3 SELECTION OF THE STUDY AREA :

The state of Rajasthan has remained for long, an educationally underdeveloped state. The problem of educational development in the state is further compounded by severe inter-regional and social disparities in terms of enrolment, literacy and completion of elementary and higher education. This necessitates a geographical enquiry pertaining to the patterns of literacy and elementary enrolment and the causes lying behind the regional and social disparities.

ADMINISTRATIVE DIVISIONS

**RAJASTHAN
(STUDY AREA)**



Relevance of the study increases in the context of rapid progress made by the state on educational front in the last decade. During this period, Rajasthan recorded one of the highest growth rates in literacy in India and was able to overcome the inertia of educational underdevelopment. But, because of a low base to start with, even a high growth has not ensured the status of an educationally developed state to Rajasthan. At the same time, Rajasthan represents enormous geographical, economic and social diversity that conditions the process of development and results in regional disparity.

However, the state is poised for a bright future. One of the lessons emerging from a wide range of recent development experiences is that public action can play a powerful role in promoting the cause of education. Role of Panchayati Raj Institutions, participatory schemes like 'Shiksha Karmi Project' and innovative models like 'Barefoot College' etc. are outcome oriented and have been widely hailed in academic and administrative circles. The state needs to put a lot more resources for the cause of education to get a comparable place with other leading states like Kerala.

At the current 'take – off' stage, it is imperative to look at the spatial aspect of the phenomenon of educational development to provide the essential inputs for future development. In this light, the present study attempts to identify the dynamics of educational development regionally, socially as well as temporally. Along with an analysis of the causative factors of the process, it makes a humble effort to suggest purposeful strategies to achieve the goal of universalisation of elementary education in the state.

1.4 DATA BASE

It is obvious from the objectives mentioned above that examining such a social reality is bound to give scope to differences of opinion and differing approaches. In order to examine the spatial variations of enrolment it is imperative to incorporate some objective data and factual information to minimize subjectivity. This is one thing, another pertains to the reliability

of data which also constrains the research work as revealed in the second part of Chapter II.

The data used in this study was obtained from variety of secondary sources.:-

Enrolment data	Sixth and Seventh All India Educational Surveys, NCERT. District Report cards, Vol. II 2003, NIEPA Rajasthan Mein Shiksha Ki Pragati, Bikaner.
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Other sources include census of India, NSSO, Rajasthan, Human Development Report, Centre for Monitoring of Indian Economy (CMIE).

The data from these sources had serious problems of comparability both temporal as well as spatial. Therefore, some adjustments were made by clubbing few columns here and there to ease comparative study.

1.5 METHODOLOGY

The methodology so adopted for the research work includes some specific calculations. Gross Enrolment Ratios for various levels of education have been calculated by dividing the population enrolled in a particular level (say primary level) by the population in that age group (6-11 years for primary level). The estimated child population has been used since the reference period for the sixth and seventh All India Educational Surveys was Sept, 1993 and September 2002 respectively. These ratios are known as Gross Enrolment ratios. They do not exactly represent the real scenario as over-age and under-age children are also found to be enrolled at a particular level.

Further correlation and linear regression analysis has been attempted to test the hypothesis. A Stepwise regression analysis has been worked out in order to examine the impact of individual variables in group and to get a more realistic picture for the better explanation of dependent variables.

a) Simple Linear Regression:

The study of causal relationship between a dependent variable and one or more independent variables on the dependent variable. The form of any linear relationship between a dependent variable and an independent variable x is given as –

$$Y = \alpha + \beta x + U_i$$

Where the constant α and β are the intercept and slope of the straight line and U_i is the error term. The basic objective of a regression analysis is to estimate the values of α and β .

b) Step-wise Regression

In this study, the step-wise regression procedures has been followed to select the explanatory variables responsible in determining enrolment. This procedure has many advantages. Firstly, it tells the contribution of an added or deducted variable in explaining the deducted variable (by seeing the changes in R^2). Secondly it selects the minimum number of variables that could explain the maximum variability in the dependent variable.

The multiple linear regression equation for the i th step (where $I = 1 \dots P$) has been assumed to be of the following form

$$Y_i = b_0 + b_1 x_1 + b_2 x_2 + \dots + b_j x_j + \dots + b_i x_i + U_i \text{ where}$$

$$Y_i = I \text{ th dependent variable, } (I = 1 \dots P)$$

$$X_j = j \text{ th dependent variable, } (j = 1 \dots n)$$

$$b_j = j \text{ th regression co-efficient, } (j = 1 \dots n)$$

$$U_i = \text{random error}$$

In order to measure disparity, Sopher's index of disparity has been used. In the context of geographical research, Sopher proposed a novel index to measure disparity between two observations.

$${}^4 D_s = \log \frac{x_2}{x_1} + \log \left(\frac{100 - x_1}{100 - x_2} \right)$$

Where $x_2 \geq x_1$

⁴ Sopher, D.E., 'Measurement of Disparity', The Professional Geographer, Vol. XXVI, No.4, Nov. 1974, pp. 389-92.

1.6 ORGANISATION OF THE RESEARCH WORK :

The present study is divided into seven chapters. The first chapter of the dissertation makes an attempt to introduce the topic, spell out the objectives, database and methodology. The second chapter is devoted to survey of literature so as to establish the framework of research. Chapter three examines the overall education scenario in the state of Rajasthan and the spatial patterns of literacy at the district level. Chapter four tends to explore the spatial patterns and processes of educational enrolment at various levels of Education, for various social groups and rural as well as urban areas. This is followed by chapter five which attempts to measure the disparity in the levels of educational enrolment. Chapter six examines correlates and determinants of enrolment. Here the hypotheses have been tested statistically. Finally the Chapter seven presents a summary of conclusion along with some strategies (suggestions) to improve the enrolment ratios.

1.7 LIMITATIONS :

Official figures on enrolment are mostly exaggerated. PROBE TEAM (1999) has termed GER as Gross Exaggerated Ratio. Amartya Sen has also opined that NSSO figures are more reliable than the figures of educational survey. Therefore the Gross Enrolment Ratio, computed from the data given by All India Educational Survey, are likely to be an over estimate. Further, Age Specific Enrolment Ratio is outside the purview of this study, therefore an analysis of actual enrolment and number of non-enrolled children could not be undertaken. Analysis of dropouts, retention and grade repetition also could not be performed in the absence of age-specific data on enrolment.

CHAPTER – II

AN OVERVIEW OF LITERATURE AND THEORETICAL FRAMEWORK OF THE STUDY

2.1 The present chapter is divided into two parts. The first part deals with an overview of literature to highlight the issues, and methodological debate. The second part addresses the concern of inadequacy of reliable data, which constraints the research work. The first part of the chapter has been attempted in three sections. The first section deals with the historical perspective of how the educational development took place in India especially after independence. The second section tends to review the literature from the enrolment perspective. Here studies pertaining to enrolment trends, spatial, social and gender disparities as perceived, researched and documented by academicians and researchers will be reviewed into separate subsections. The third section mainly deals with the literature so as to ascertain the determinants of enrolment for the research work. Finally the issue of expenditure on education and recent concerns have been dealt with.

2.2 When the planning process was initiated in the independent India, there was huge legacy of colonial educational system. Mass education, comprising of universal primary and universal upper primary education and adult education was never a priority in the colonial educational policy, nor was of course secondary and higher education.

The colonial rule transformed an 'intermediate' literate society into a predominantly illiterate society.¹ As Naik² rightly remarks that the Indian Society in the 19th century was highly stratified, hierarchical and inegalitarian. The educational development was lopsided and highly

¹ Basu, Aparna (1982) *Essays in the History of Indian Education*, New Delhi, Concept.
² Naik J.P. (1975), *Equality Quality and Quantity: The Illusive Triangle in Indian Education*. p.4

skewed. It is this educational picture which broadly reflects the socio-economic background of inequality.

India had to start, after independence, almost from scratch, and has made significant progress during the post independence period. The Government of India has recognized the pivotal role of education in development. The Constitution of independent India (1950) had resolved to provide elementary education free to every child. It stated:-

“the state shall endeavour to provide, within a period of ten years from the commencement of this constitution, for free and compulsory education for all children until they complete the age of fourteen years”

(Article 45)

This constitutional goal has the history of its formulation. The British administrators refused to accept the principle of compulsory elementary education. A demand that four years of compulsory education should be provided to all children was put forward, for the first time before the Indian Education Commission, by the Grand Old Man of India, Dadabai Naoroji, in 1881. The proposal was again taken up by the G.K. Gokhale who moved a resolution on the subject, in the central legislative assembly in 1910 and a bill in 1912, neither of which achieved their objective . The public demand kept on increasing and between 1918 and 1931 compulsory education laws were passed for most parts of the country by the newly elected state legislatures in which Indians were in majority. In 1937, Mahatma Gandhi actually defined the content of Basic Education as equivalent to matriculation minus English plus craft. This led to the acceptance of free and compulsory education to all children up to 14 years at the National level. Under the wise leadership of Sir John Sargent, the then Educational Adviser to Government of India, these ideas were accepted by the British Administrators and led to the formulation of the Sargent Plan. The Sargent Plan proposed to provide free and compulsory basic education to all children in the age group 6-14 over a period of 40 years (1944-1984). The nationalist opinion did not agree to such a long

period and a committee under the chairmanship of B.G. Kher proposed that this goal could and should be achieved in a period of 16 years (1944-1960). It was this recommendation that was eventually incorporated in the constitution as 'Directive Principle of State Policy'.

But the goal still remains elusive. Keeping in view the educational facilities available at the time in the country, the goal probably was too ambitious to be achieved within a short period of ten years. However, with each passing decade, that target was revised. In 1965-66, the target date was revised to 1975-76. A working Group set up by the Planning Commission revised the target to achieve UEE by the end of sixth plan (1984). The Kothari Commission (1964-66)³ suggested that it be achieved latest by 1986. National Policy on Education (NPE 1986) envisaged the goal by 1995, while revised programme of Action (PoA 1992) set the target of providing free and compulsory education of satisfactory quality to all children upto fourteen years of age before the commencement of the 21st century by launching a National Mission.⁴

The policy goal of Government of India and the states remained the same over the years, though some of the strategies adopted in the earlier decades and currently were different, and the target dates of achievement of the goals have been postponed every time.

Equity in education, by gender, caste and socio-economic groups and reduction of regional disparities in education development is yet to be achieved.

Naik⁵ argues that simultaneous pursuit of these goals (equality, quality and quantity) has made the task extremely difficult. He stated that:

"... for instance, the pursuit of quality has often linked itself with privilege and become inimical to that of quantity; the pursuit of quantity,

³ Education Commission (1964-66) Ch. V, p. 89.

⁴ Mehta, Arun C. (1994), "Education for all: Enrolment Projections in India", Journal of Educational Planning and Administration Vol III, No. 1, January 1994, pp. 63.

⁵ Naik, J.P., (1975), Equality Quality and Quantity The Illusive Triangle in Indian Education, pp. 4-5.

in its turn, has often led to deterioration of standards and the pursuit of equality has been often found to be inimical to that of quality and has been frequently hampered by the very inequalities in society which it was intended to remove...”

While Nurullah⁶ attributes the slow progress on the Educational front to meagre resource availability for educational development and that too is proportionately going down and inordinate rise in population. He further states that the progress of the UEE goes on side by side with social and economic development of the country. Progress in this later sector has been slow and consequently the progress of UEE is also bound to be adversely affected.

The mean years of schooling of population, a summary statistics of education development, in India has increased from 1.78 in 1997 to 2.35 in 1981 and from 3.7 years in 1992-93 4.4 years in 1998-99.⁷ It is still very low, as in quite a few advanced countries, the corresponding figure is above ten; and in many other developing and developed countries it is above five (UNDP, 1992). Aside from being low on average, education achievements in India are highly uneven.

Literacy rates vary a great deal with region, class, caste and gender. India has one of the highest female-male gaps in literacy rates in the World. According to the Human Development Report 1988, only five countries have a higher gap than India: Bhutan, Syria, Togo, Malawi and Mozambique. Rajasthan alone has as large a population as all these countries combined, and no country in the world has a higher female-male literacy gap than Rajasthan.⁸

The PROBE Team (1999) attributes to such a skewed scenario as largely a reflection of state inertia.

⁶ Nurullah, Syed and Naik, J.P., Student's History of Education in India (1800 -1961) p. 390.

⁷ Tilak (1994)

⁸ PROBE Team (1999) pp. 11.

During the last five decades, it has been increasingly realized that the goal of Universalisation of Elementary Education (UEE) cannot be achieved merely by quantitative expansion of educational facilities. The focus has now shifted to universal access and enrolment, universal retention of children up to 14 years of age and a substantial improvement in the quality of education to enable all children to achieve the essential levels of learning. The above said three aspects were emphasised by then Human Development Minister, while presenting, the revised NPE in the Parliament (1992).

In order to achieve the target of UEE, it is essential that all children in the school going age group of 6-14 years; should enroll in schools and leave schools not before the completion of the upper primary level.⁹

2.3 The engine of the growth in literacy was the expansion of primary education i.e. the rising enrolment. Higher enrolments lead to higher literacy rates provided drop-outs do not increase at the same rate.¹⁰ Therefore, enrolment is a necessary condition for obtaining literacy in a formal system but not sufficient to attain literacy. It is equally important to ensure universal retention up to the age of 14 years with quality education to attain overall educational development of children.

A chronological picture of enrolment in India from 1921 to 1975 has been presented by Naik.¹¹ In 1921, total enrolment at the primary and middle school stages were only 6.9 million or 18.5 percent in the age-group (6-11 years) and only 0.43 million or 2.2 per cent in the age group (11-14 years). In 1947, one child out of three in the age – group 11-14 years was enrolled, the respective figures rose substantially in the year 1975 when enrolment was recorded as 86 per cent in 6-11 year age-group and 36 per cent in 11-14 year age-group.

⁹ Reddy, V.N. (1995) "Gross Enrolment, Dropout and Non-Enrolment Ratios in India. A State Level Analysis", Journal of Educational Planning and Administration, Vol. IX, No. 3, July 1995, pp. 229.

¹⁰ Ratna Reddy, V. and Rao, R.N. (2003) "Primary Education, Progress and Constraints", Economic and Political Weekly, March 22-29, 2003, pp. 1245.

¹¹ Naik, J.P. (1975) *ibid.* pp. 44-46.

Official gross enrolment ratios (GER) quoted in Mehta¹² are 101.6 per cent at the primary level in 1991-92, rising from a mere 19.2 per cent in 1950-51 and 61.5 per cent at the upper primary level from 12.9 per cent in 1950-51. The share of girls' enrolment at primary level has increased from 5.4 per cent in 1950-51 to 42.3 per cent in 1991-92.

These Gross Enrolment Ratios do not reflect the real scenario as they are exaggerated. The PROBE¹³ (1999) on the basis of their primary survey, also brings out this factor. PROBE, in fact designates GER in the government sources as 'Gross Exaggeration Rate'. Even Amartya Sen¹⁴ observes the official data on 'School enrolment' and related statistics published by the Department of Education to be grossly inflated, partly due to the incentives accrued to the government employees by representing exaggerated figures. Therefore, such a discrepancy in the form of unreliable data poses a challenge for the policy makers. The second part of this chapter makes an attempt to highlight the issue of reliability of data after making comparisons from different sources for the same point of time.

Regarding the utility of enrolment projections, Mehta¹⁵ writes that enrolment projections are one of the most important requirement of educational planning as they form the backbone of practically each single task involved in it. Whether it is a question of opening of new schools or upgradation of existing schools or the number of schools and teachers required in future, none of these task can be accomplished unless the planner has an adequate idea of how many students will enter the system; how they will proceed through various grades and what number will graduate during the plan period.

According to R.R. Singh (1993) the phenomenon of low enrolment and drop-out are to be dealt as a process, rather than as an outcome at a

¹² Mehta, A.C. (1994), *ibid.* pp. 64.

¹³ PROBE (1999).

¹⁴ Dreze Jean and Amartya Sen (2002), 'India : Development and Participation'. pp.142-44

¹⁵ Mehta, A.C. (1994), *ibid.* pp. 267.

point in time. Low enrolment in the field of education reflects the working of the system and society more than the will or volition of the individual.¹⁶

Education Commission (1964-66), while recommending the National Enrolment Policy stated that since India has committed herself to the creation of a democratic and socialistic pattern of society, the fundamental principle that should guide the provision of facilities and at the different stages and sectors of education is

‘to provide effective general education of not less than seven years duration to every child on a free and compulsory basis, and to expand lower secondary education on as large a scale as possible.’

The quite visible improvement in enrolment ratios and levels of literacy is a result of determined efforts that have been made to achieve the goal of education for all, since 1950. The progress of education especially in terms of number of institutions and teachers have been spectacular.

Yet, we are far behind in terms of overall educational development vis-à-vis developed countries of the world. The goal of providing access to school to all children aged between six to fourteen years still remains illusory. There are huge disparities in educational attainment across social groups and across different regions of India. Study of enrolment scenario with a focused approach and a deep understanding of associated factors, thus becomes essential in this context.

2.3.1 The spatial inequality which is the major concern for a geographical approach to such a social reality as of education has received attention rather late. Kothari commission took note of the regional imbalance in the provision of educational facilities which needs to be corrected and good educational facilities should be provided in rural and other backward areas.

Sinha, S.¹⁷ in his research work observed that in spite of the ‘positive protective discrimination’ in favour of SCs, they are yet to achieve the

¹⁶ Singh R.R., (1993), “*Education of Adolescent Girls: A Social Assessment*” MARGIN, Jan-March 1993, pp. 111-123.

¹⁷ Sinha, Sachidanand, “Levels of Educational Development among the SC’s. of Bihar: An analysis of spatial correlates and determination, unpublished dissertation, CSRD/JNU.

desired results. In fact the implementation had been such that an elite class has emerged over time within the backward societies.

The vision behind making a provision of free of cost elementary schooling to all children is that neither school enrolment nor continuation rates should differ across states and by socio-economic groups. However, there exists gender, regional and socio-economic disparities in enrolment rates all over India.

India Human Development Report¹⁸ 2001 has very well brought out these differences in literacy and enrolment between male and female population, between rural and urban population, across different social groups (based on caste, religion or tribal identity) across different income groups and across states. HDR 2001 mention that the enrolment rate for rural India as a whole is 71 per cent with a gender disparity of 0.84 showing a deficit of 16 percent for girls.

In spite of long term efforts to increase participation of girl children in schooling, women education levels remain low in many parts of India. Based upon disaggregated education deprivation indices for some significant socio-economic groups, Manabi Majumdar¹⁹ shows how different population groups of the same country, seem to be living in different worlds in educational terms. She further explores how various mechanism of veiled discrimination, systematically includes some but excludes others from access to the world of education.

Dreze and Sen²⁰ states that the problem of low average literacy rates is exacerbated by enormous inequalities in educational achievements. There is a concern for the existence of large disparities between different states. In 1991, for instance, the female literacy rate varied from 20 percent in Rajasthan and 25 percent in Uttar Pradesh to 86 percent in Kerala, reflecting highly uneven effort to expand basic education in different states.

¹⁸ India Human Development Report 2001, pp. 103-104

¹⁹ Majumdar M. (1996); "*Exclusion in Education : Evidence from Indian States*, Journal of Educational Planning and Administration, Vol. X No.2, April 1996, p. 121.

²⁰ Dreze Jean and Amartya Sen (2002), 'India: Development and Participation'. p. 149.

They further observe that there are also large inequalities in educational achievements between urban and rural areas, between social groups, and of course between men and women.

Jacob Aikara,²¹ while examining the poor educational development of scheduled caste in India, hold the discriminatory social practices of the caste system and the elite oriented educational system – responsible. Income differentials across groups further accentuate the disparities. Enrolment rate is low among poor households even when primary and elementary schooling is provided free of costs.²²

But the question arises, is elementary schooling really free of cost? What are the processes that are at work to produce such spatial inequalities? These issues need to be addressed and researched upon.

2.4 This section attempts to provide an overview of the literature in order to estimate the factors or determinants of Educational Enrolment, Literature-review of a number of studies pertaining to literacy, enrolment and drop-out reveals a variety of determinants of enrolment. The supply side factors consists of availability, access and quality of schooling facilities.

Although the number of schools has increased enormously since independence, the growth has not kept pace with the growth in population, with the result that even today, a large number of rural habitations are without a primary school.²³

PROBE²⁴ (1999) reveals that what needs to be considered is not just physical distance but also ‘social distance’, taking into account various barriers that may prevent a willing child from reaching the local school. In many areas, for instance, villages are divided into separate hamlets, and

²¹ Aikara, Jacob (1996); “*Inequality of Educational Opportunities: The Case of scheduled caste in India*” Journal of Educational Planning and Administration Vol. X, No. 1, Jan 1996, pp. 1.

²² India HDR, 2001.

²³ Sengupta, P. (2002), “*Enrolment Dropout and Grade Completion of Girl Children in West Bengal* EPW, Vol. 37, No. 17, p. 1622.

²⁴ PROBE Team (1999)

children from one hamlet may be reluctant or unable to go to school in another hamlet e.g. due to caste tensions.

Further, the thing that is to be taken into account in assessing the physical adequacy of schooling facilities, it is crucial not to lose sight of the constitutional objective of universal education until the age of fourteen. This calls for the convenient availability not only of primary schools, but also of 'middle' schools with classes up to grade eight: PROBE²⁵ sites that only 29 percent of the PROBE survey villages, for instance, have a middle school. And in rural India as a whole, 43 per cent of the population lives more than 1 km away from the nearest upper primary school. Here again, girls are the main victims because many parents are reluctant to allow their daughter to attend school in other village.

Enrolment is a direct function of the availability of educational infrastructure. Duly emphasizing the importance of infrastructural facilities, Dhebar Commission²⁶ recommended in early 60s, that where 30 children of school going age are available in one locality, the school should not be located at a distance of more than one mile. In no case should a child be required to walk for more than two miles to go to school.

Distances of the schooling facility from the settlement has important implications on enrolment and literacy. Naik²⁷ (1969) has pointed out that school located outside the village or at a great distance is an important factor in the lack of interest of the people in education. Physical access to schools is an important dimension in terms of both supply and demand factors. Access is often defined as availability of school to all school-going children within a distance of one kilometer.²⁸

All India Educational Surveys, have attempted to examine the problem of remoteness in terms of access to primary and upper primary

²⁵ PROBE Ibid.

²⁶ Dhebar, V.N. (1962): "*Report – of the Scheduled Areas and Scheduled Caste Commission*", The Manager Publications, New Delhi.

²⁷ Naik, J.P., (1969), *ibid.* p.37.

²⁸ Reddy V. Ratna, And R. Nageswara Rao, (2003) *Primary Education Progress and Constraints* Vol. 38, No. 12-13, pp. 1241-51.

schools. Pal²⁹ states that availability of schools within habitations alone cannot guarantee access unless the schools have an adequate number of teachers, blackboard and other necessary infrastructure.

Access needs to be defined in a socio-cultural context rather than simple physical access.³⁰ It is not only the physical location that matters in educational attainment but location of a group in socio-economic hierarchy is equally important. This issue has been highlighted by the PROBE Team, mentioned earlier.

High pupil-teacher ratio due to short supply of teachers, scarcity of learning and instructional materials and deplorable quality of existing schools discourage the students – participation.³¹ PROBE findings suggest that the current teacher resources in rural India are way behind to achieve the official goal of UEE. Besides the pupil – teacher ratio (PTR) another useful notion is the child-teacher ratio (CTR). The main difference between PTR and CTR is that the latter includes out of school children. The PROBE villages have a PTR of 50 and CTR ratio of 68. If all children were at school, each teacher would face 68 pupils on average, clearly, acceptable teaching standards would be very hard to maintain. This problem of high average PTR and CTR is compounded by a highly uneven distribution of teachers between different schools.

The problem of teachers shortage culminates in single-teacher schools.³² These have been officially abolished, but remain quite widespread in practice: 12 percent of all primary schools in the PROBE villages had a single teacher appointed. This leads to minimal teaching learning activity. The casualties include not only the children's learning achievements but also the teacher's moral and work culture.

²⁹ Pal, S.P. and Pant D.K. (1995); Ibid. p.159.

³⁰ Reddy V. Ratna, And R. Nageswara Rao, (2003) *Primary Education Progress and Constraints* Vol. 38, No. 12-13, pp. 1241-43.

³¹ Pal, S.P. & Pant, D.K. (1995). "Strategies to Improve School Enrolment Rate in India", *Journal of Educational Planning and Administration* Vol. IX No.2, 1995, pp. 159-60

³² PROBE Team (1999) p. 44.

Gender factor stands out as one of the most important determinants influencing the enrolments rates of children and particularly that of girls. It is well known that the returns from women's education are exceptionally high. Women's education is instrumental in reducing fertility and infant and child mortality rates; in improving the nutritional status of children and healthcare practices; and in improving children's school enrolment and performance³³

P.K. Ghosh (1998)³⁴ V.N. Reddy (1995)³⁵ R. Nagarajan. S. Madheswaram (2001) Hill and O' Neill (1994), Behrman and Wolfe (1983). Hossian (1990), Sathar and Loyd (1994) highlight the strong positive impact of mother's education on enrolment of children.³⁶

Myron Weiner (1996)³⁷ observes that the incidence of child labour is intimately connected with non-schooling of children, and the expansion of schooling can reduce the disturbing phenomenon of child labour so prevalent in India.

Dreze and Sen³⁸ regards it as a myth that the economic dependence of poor families on child labour is the primary reason why so many children are still out of school. Contrary to this presumption, recent studies of the time utilization of Indian Children reveal that a large majority of out-of-school children do relatively little work.³⁹

PROBE further observes that available data on labor force participation from various sources clearly indicate that only a small minority of children are full-time labourers and secondly that vast majority of child labours work as family wage labors. Unless family labor involves rigid work hours that consistently clash with school timings, it is unlikely to prevent children from attending school with reasonable regularity.

³³ Sengupta, P. (2002), *ibid* p. 1622.

³⁴ Ghosh, P.K.(1998); *Disparity and some possible Determinants of Rural Literacy/Education*", IASSI Quarterly, Vol. 17, No. 1, 1998, pp. 124.

³⁵ Reddy V.N. (1995) *ibid*, p. 1622.

³⁶ Sengupta P. 2002 *ibid.*, p. 1623.

³⁷ PROBE, team (1999) pp. 14-16 ,pp. 28-31.

³⁸ Dreze and Sen, (2002) *ibid*, pp. 55-57

³⁹ Weiner, Myron (1996), '*Child Labour in India; Putting Compulsory Primary Education on the Political Agenda*', EPW, 1996, Nov 9-16, pp. 300-314

Amiya Rao⁴⁰ (1980) states that as a consequence of poverty, a very large number of children between 6 and 14 years who should be at school are not. Poverty not merely discourages the child from going to school, it also inhibits his continuance in school. He performs poorly because of malnutrition, poor health and poor resistance.

Using an index of assets as a proxy for household wealth, Filmer and Pritchett (1993)⁴¹ find out enormous gaps between the enrolment and attainment of children from rich and poor households based on NFHS data collected in 1992-93. While 82 percent of the children from the richest 20 percent complete grade 8, only 20 percent of children from poorest 40 percent of households do.

Kiran Bhatti,⁴² while interrogating the belief that poverty is the main cause of educational deprivation in India draws attention to the fact that it is the direct cost of schooling, which impose substantial burden on families, and the low quality of schooling facilities, which reduce the child's interest in education, that primarily account for educational deprivation.

S.P. Pal and D.K Pant⁴³ maintains that it is the poverty illiteracy syndrome and not ethnic composition of the population per se that constrains access to school education. They go on to hypothesize that it is the interaction among poverty, illiteracy and direct private cost of school education as an important determinant of access to school enrolment.

Factors that affect enrolment of girls have found a prominent place in most of the studies. Some of the strongest enabling factor with regard to girls' school participation and grades attainment are household resources factors such as parental especially maternal schooling, father's occupation,

⁴⁰ Rao, Amiya (1980), "Primary Education: Problems and Purpose" EPW: March 8, 1980, pp. 503.

⁴¹ Filmer, D. and Pritchett, L. (1999): "Educational Enrolment and Attainment in India: Household Wealth, Gender, Village and States Effects," Journal of Educational Planning and Administration, Vol. XIII. No. 2, April 1999. pp. 135.

⁴² Bhatti Kiran (1998): "Educational Deprivation in India: A Survey of Field Investigations" EPW, Vol. 33 No. 27, pp.

⁴³ Pal, S.P. and D.K. Pant (1995), "Strategies to improve School Enrolment Rate in India", Journal of Educational Planning and Administration, Vol. IX, No.2, April 1995, pp. 162.



and family income. Urban residence has a strong positive association. A girl child's labour force participation significantly reduces the demand for schooling, and the amount of schooling obtained. Religion and caste factors emerge as important determinants of schooling, as well.⁴⁴

Poverty stands out as a major obstacle in increasing enrolment of girls in schools. Girls are selectively left out in favour of their male siblings, if the parents are poor.⁴⁵

Household responsibilities further impede their chances of getting education. In case of the death of mother in the family, girls are the first victim as very often, the girl child has to take charge of the household activities and that of her younger siblings, for which her education may be discontinued.⁴⁶

Early marriage, greater involvement of girls in the economic activity of the household from an early age, absence of lady teachers in school etc. are some of the major problems affecting enrolment and retention among girls in Rajasthan especially in rural and tribal areas.⁴⁷

Major determinants of schooling of girl children are - parental education especially that of mother (Wolfe and Behrman, 1984; Murmane, 1981; Alderman et al, 1996;) household income (higher income creating higher demand for schooling). (Hussian; 1990; Ghosh, 1991; Deolaikar, 1994, Guha Roy et al, 1995); number of younger siblings (exerting a strong negative influence on girls schooling (Panday, 1990; Ghosh, 1991; Lloyd and Blanc, 1999); distance of schools and shortage of female teachers in rural areas, demand for labour of girls for household chores and other cultural factors like early marriage, restriction on physical mobility of girls (S.P. Pal) etc.⁴⁸

⁴⁴ Sengupta, P. (2002), *ibid.* p. 1623.

⁴⁵ Phadke, Sindhu, (1967), "*Special Problems of the Education of Women*", *The Sociology of Education in India.* (ed.): M.S. Gore, I.,P. Desai and Suma Chitnis, New Delhi NCERT, P. 184.

⁴⁶ Phadke, S. (1967), *ibid.*

⁴⁷ Bhargava and Mittal - "*Sample Survey of Educational Facilities for Scheduled Caste and Scheduled Tribes of Rajasthan*", New Delhi, NCERT.

⁴⁸ Sengupta, P. (2002), *ibid.* 1622

This section of the literature review throws light on the expenditure of an educational front. Amartya Sen rightly remarks that -

“To say that India does not have the money for education (and health care) is absolute, utter unmitigated non sense”.

By resolving to provide elementary education “free to all”, the Government of India has also implicitly recognised the ‘public good’ nature of elementary education. Nuruallah and Naik⁴⁹ states that in the pre-independence period, a common criticism of educational system used to be that it resembled an inverted pyramid and that the expenditure on higher and secondary education was far out of proportion to the expenditure on primary education.

Tilak⁵⁰ remarks that though in comparison to very low level of 1.2 percent in 1950-51, there has been a very significant progress to 3.8 per cent of GNP is invested in education in India (1996-97).

The National Policy on Education 1986 and revised policy (1992) resolved to invest six percent of GNP in education. But the proportion actually invested has been less and as Tilak observes it has been constantly declining in 1990’s.

Dreze and Sen⁵¹ observes that as a proportion of the ‘State domestic product’, public expenditure has declined in majority of states in the 1990s.

Further the inter-sectoral distribution has been rather lop-sided and this goes on to become the constraint on the fulfillment of the constitutional goal. (see table 2.1)

⁴⁹ Naik, J.P. and Syed Nurullah (1951); “*A Student’s History of Education in India*” .

⁵⁰ Tilak, J.B. G., (1990) “*Financing Elementary Education India in the 1990*”, IASSI Quarterly, Vol. 17, No. 3, 1999, pp. 13-16.

⁵¹ Dreze and Sen (2002) *ibid.* p.168

Table 2.1 Intra-sectoral Allocation of Plan expenditure in Education in the Five year plans in India (In percent of the total)

	Elementary	Adult	Secondary	Higher	Technical	Grand Total	Percent of Total plan outlay
Five year Plan							
First	56	3	13	9	13	100	7.86
Second	35	1	19	18	18	100	3.83
Third	34	.3	18	15	21	100	6.87
Annual Plans ^(a)	24	**	16	24	25	100	4.86
Fourth	30	1	18	25	13	100	5.04
Fifth	35	4	17	22	12	100	3.27
Sixth	30	3	25	18	11	100	2.70
Seventh	34	6	22	14	12	100	3.50
Annual Plan	33	7	20	11	16	100	4.20
Eighth	42	18	16	7	13	100	4.90
Ninth	51	2	18	8	9	100	6.20
Tenth ^(b)							5.25

Source : Five year plan(s), Annual plan(s), Economic Survey

** Negligible

(a) 1965-66 to 1967- 68 (3 years)

(b) 2002-03, 2003-04 (2 years)

Recently some researchers and academicians have gone to inquire whether Elementary Education is really free? Tilak⁵² states that until now elementary education in India is neither free nor compulsory.

PROBE team (1999) regards free Elementary education as a myth. The survey suggests that north Indian parents spend about Rs. 318 per year (on Fees, books, slates, clothes, etc.) on an average to send a child to a government primary school

⁵² Tilak, J.B.G. (2004), "Free and Compulsory Education EPW," 2004, Vol. 39 No. 7 Feb 14, pp. 618

Table 2.2 Average cost of sending a child to school

Level	(Rs/Year at constant 1996-7 prices source)	Average cost
Primary	NSS estimate 1986-7	212
	PROBE estimate , 1996	318
Elementary	NCAER estimate, 1994	478

Source – PROBE Team (1999) pp. 17

2.5 In the recent years there has been innovative programmes in the field of education, initiated in different parts of the country which have provided very encouraging outcomes. Programmes like Shiksha Karmi Project in Rajasthan and Educational Guarantee Schemes in Madhya Pradesh have been widely hailed.

Dreze and Aparajita Goyal⁵³ based on the CES (Centre for Equity Studies, New Delhi) survey suggests that the mid-day meal initiative could have a major impact on child nutrition, school attendance and social equity. However, quality issues need urgent attention if mid-day meal programmes are to realize their full potential.

PROBE sites that the informal evidence is encouraging on this regard.⁵⁴ Aside from this incentive argument, the case for school meals also involves a nutrition argument and a socialization argument. The socialization means that sitting together and sharing a meal helps to erode the barriers of class and (especially) caste. But the survey by PROBE Team finds that none of the PROBE states have actually introduced school meal. As a convenient substitute, these states run a scheme of 'dry rations' where by children receive monthly grain rations (3 kgs per child instead of cooked food).

⁵³ Dreze Jean and Aparajita Goyal, (2003), "Future of Mid-day Meals" EPW 2004, Vol. 38, No. 44, pp. 346- 47.

⁵⁴ PROBE (1999) *ibid*, pp. 95-96.

Thus to conclude it can be said that there is a need to analyse the issue of educational deprivation in a holistic frame where the accessibility, affordability and quality of schooling are to be in the centre-stage.

2.6 RELIABILITY OF DATA

The reported GER and NER are based on enrolment data taken from secondary sources of information collected and compiled by government departments basically from the school register. In the context of UPE in India, policy initiatives till the 1980s, referred almost exclusively to the universal enrolment. The pressure of twenty point programme, eligibility to free food grain and allocation of posts of teachers linked with enrolment etc. have all resulted in over-reporting of enrolment figure to a considerable extent. The PROBE (1999),⁵⁵ on the basis of their primary survey, also brings out this factor. PROBE, in fact, designates GER in the government sources as 'Gross Exaggeration Rate' on the following ward.

- (1) these include under-age enrolment especially in class I
- (2) these include nominal and fake enrolment of the children who are actually not motivated to attend school and
- (3) these include double enrolment of the children who are actually enrolled and regularly attending some recognized private schools as well.

Besides, the names of children who enroll but dropout before completing 5 classes of primary education continue to appear in the school register. Further, the reported GER and NER are calculated on the basis of the number of children in the relevant age group as projected by the planning commission. These projections appear to be on the lower side. Population of India has touched a level of 1000 million as against 960 million projected by planning commission for the year 2000, thus, the GER and NER also get over estimated to the extent of underestimation of the relevant age-group population.

⁵⁵ PROBE (1999) PP. 91-93.

The PROBE⁵⁶ report states that the teachers have several incentives of over-reporting of the enrolment figures. Some of these are:-

- (1) If enrolment falls below a specific level, the teacher may be transferred.
- (2) They may be under direct pressure to show progress in enrolment over time or 'universal enrolment' in the relevant age group.
- (3) Parents may force the teacher for registering nominal enrolment for availing the benefit of incentives such as for mid-day meals.
- (4) Private schools may approach the teachers of government schools for double enrolment' under a mutually advantageous arrangement.

Even Amartya Sen⁵⁷ observes that the official data on 'School enrolment' and related statistics published by the Department of Education to be grossly inflated, partly due to the incentives that government employees at different levels have to report exaggerated figure. He further highlights this thing for instance, in 1995-96 the Gross Enrolment Ratio at the primary level was a heart warming – if somewhat baffling - 104 per cent, rising to 112 per cent among scheduled castes. State specific patterns were no less surprising, with the gross enrolment ratio rising to 127 in Nagaland and 131 in Gujarat, while Kerala managed 'only', 97 per cent.⁵⁸ These official enrolment figures are impossible to reconcile with the survey based evidence. In contrast the broad consistency gives additional reason to accept these combined sources as being more reliable.

Amartya Sen, considers the data generated by National Family Health Survey to be more reliable than the official data. The NFHS-II school attendance rates are best compared with the corresponding NFHS-I figures, rather than with the 1991 census figures, as there is a substantial discrepancy between census and NFHS-I data for the 6-11 age group. The broad consistency between NFHS-I, NFHS-II and National Sample Survey

⁵⁶ PROBE Team (1999).

⁵⁷ Dreze and Sen '*India Participation and Development*' pp. 146-147

⁵⁸ Govt. of India (1997) pp. 262-4,

(NSS), (1995-96) data on school attendance suggest that these sources are more credible in this respect than the 1991 census data.⁵⁹

As per the data reported in PROBE the NER of boys and girls in primary education work out to be 85.43 percent and 56.23 percent respectively. The data generated from house to house survey by Lok Jumbish Project through an alternative system and as a part of school mapping in the village in which it has been working reveal much lower NER 63.46 percent for boys and 25.29 percent for girls, before any intervention was made.

Even if the reported data are accepted as representative, the reported GER as an indicator of universal enrolment in Rajasthan does not reflect the actual status of enrolment. This is evident from the fact that the reported differentials between GER and NER is much higher in Rajasthan as compared to all India average implying that large number of over-age underage children are enrolled corresponding to this, the net attendance ratio (NAR) in Rajasthan is less than all India average

Table 2.3 Net Attendance Ratio: Comparison between Rajasthan and India

NAR (1996)	Rajasthan	India
I-V	55	66
VI-VIII	35	43

Source MHRD, GoI (1998) Selected educational statistics, 1997-98.

This indicates that many of the enrolled children are actually not attending schools regularly and therefore, even if the reported GER is high, it does not necessarily imply better performance of Rajasthan in real sense.

⁵⁹ Dreze and Sen (2002) *ibid.* pp. 150-51.

**Table 2.4 Comparison of Enrolment Rates from Various Data Sources,
Rajasthan**

AGE GROUP		Annual report, MHRD, GOI, 1992-93	Sixth All India Educational Survey 1993	HDI Survey of NCAER 1993	NFHS, 1992-93
6-11 years	TOTAL	91	75.4	*	58.5
	GIRLS	60.9	53.5	*	42.4
	BOYS	119.5	95.1	*	72.4
11-14 years	TOTAL	53.9	44.3	*	59.3
	GIRLS	28.9	24.2	*	37.7
	BOYS	76.8	61.9	*	77.2
6-14 years	TOTAL	*	64.8	61.3	58.8
	GIRLS	*	43.7	41.9	40.6
	BOYS	*	83.7	78.0	74.3

Source:

1 MHRD, government Educational statistics annual report (1992)

2 Sixth All India Educational Survey, NCERT,(1993)

3 HDI, survey of NCAER,(1993)

4 National Family and Health Survey, (1992-93)

Other than the problem of over-reporting of enrolment figures in secondary sources, another very important problems arises from the inconsistency of data reported in various secondary sources. This gives rise to a serious confusion regarding the actual enrolment status and the question arises as to which sources of information is to be relied upon to assess the more accurate situation.

CHAPTER – III

EDUCATION SCENARIO IN RAJASTHAN

3.1 Status of literacy and Enrolment form the basics of educational achievement. Both are interrelated. Literacy figures in a way bear the results of past action (or inaction), enrolment statistics provide an idea about how the education scene is likely to evolve. Education is one of the most important social indicator that is directly linked to economic development. Basic education is a catalyst of social change and is widely perceived by members of socially or economically disadvantaged groups as the most promising means of upward mobility for their children. (Dreze and Sen 1950, Probe Team (1999), Majumdar (1993).

With this background the chapter tends to study the progress of Rajasthan on the educational front. Further there is an attempt to analyse the spatial patterns of literacy as well as growth in literacy at the district level in the last decade of twentieth century.

3.2 The Rajasthan Context

The state of Rajasthan is one of the states that is commonly identified as lagging behind in terms of the development indicators. The state is characterized, inter alia by high levels of mortality, fertility, morbidity, under-nutrition, illiteracy and social inequality. The peculiar geographic character of the state makes it a difficult task to deliver basic services such as health, education, water etc. to all people. A distinguishing feature of Rajasthan is its feudal past. The state in its present form, was formed by integrating the erstwhile princely states which had their own systems of administration and jurisprudence, with the ruler being the arbiter. The socio-cultural milieu and sub-cultural regions identified and recognized by people for their distinct culture and caste continues to maintain its hold on members with reference to marriage, occupational pursuits and

commercial relationship. On the other hand, the feudal history of the state has also shaped and enhanced patriarchal norms and practices which deeply influence women's lives. The status of women in Rajasthan, in turn, derives from cultural prescriptions about sexual division of labour and gender inequalities in a patriarchal society.

Thus before analyzing the spatial variations in literacy, it may be instructive to consider the historical context of the development of modern education in Rajasthan in order to understand the persistence of gender and other forms of social bias, as well as conditions for change (increased participation by civil society, a spirit of social service, voluntarism and philanthropy).

3.3 Education in Pre-Independence Era

Modern Education, as defined in Lord Macaulay's minute on Education, appears to have started in Rajasthan in the middle of the 19th century, although the tradition of public education dates back to the medieval period. In medieval time educational institutions were founded either by kings in their respective principalities, or by the communities (Hindu Pathashalas and Muslim Makhtabs). The provision of education sponsored by kings and princes, depending on their personal commitment, widely varied between principalities. The Hindu Pathashalas and Muslim Makhtabs, mainly sponsored by parents, were informal arrangements in comparison to the 'royal' schools, and either existed as a source of income for the teachers, or out of the teacher's sense of moral obligations. The ruling elite believed that education, being too dangerous to be extended to 'low' castes, had to be imparted only to Brahmins and, at the most, trading communities. Moreover, many of them did not regard education as a priority. This attitude often transcended personal preference and was reflected in their states' policies. Education in medieval Rajasthan was, therefore, based on patronage, either by the royalty or by influential members of the local community. While it did affirm the key role of public provisioning of education, its sphere was limited both in terms of the area covered and the skills taught as the students (and teachers) were mainly

either from the royal or noble households or were “beneficiaries” of occasional munificence.

English medium and “modern” schools were first introduced in Alwar and Bharatpur in 1842, in 1844 in Jaipur and in 1863 in Udaipur. Efforts to introduce modern education in Amjer-Mewara area began in 1819.¹ The provision of education varied among princely states. Jaipur state was at the forefront of modern education in Rajasthan where in 1844 the Department of public instruction had been established. The education scenario in smaller states of Bundi, Dhaulpur Shahpura, Banswara and Dungapur was very different.² Common to all states was a dearth of girls education. The limited number of girls’ schools that opened under the auspices of the Maharaja in Jaipur by 1872 (for example Jaipur Central Girls School) was an exception. In general, girl’s education was considered unimportant and suffered from conservative social attitudes and practices, as well as from a lack of female teachers. The curriculum also varied between schools. In state schools, where the curriculum was influenced by the British school system, teaching activities were focused on languages. In addition boys were involved in sports activities and girls in domestic activities. The Jaipur Album, Education Chapter states that-

“the object is not only to turn out educated ladies but also good house wives, by adapting the works in the school to the house life of the girls. Dharma Shiksha also form a part of the curriculum.”³ This was undoubtedly a gender stereotyped approach to education that reinforced the patriarchal division of labor. In the early twentieth century primary education started to be extended to districts, smaller towns, and villages. This resulted from a combination of three factors – philanthropy, nationalism and social reform.

¹ G.S. Verma (1986), “*History of Education in Rajasthan*”, p. 37, Sabd Mahima, Jaipur.

² G.S. Verma (1986), *ibid.* p. 53.

³ Government of Jaipur (1933), “Jaipur Album” p. 11.

3.4 Development of Education in Rajasthan after Independence

The momentum for the expansion of education in Rajasthan was reinforced by the constitutional commitment to universalisation of education, as spelt out in the Directive Principles of state policy in the constitution of India. Over the years the state has made advances to achieve this goal. The pace, though has been very slow, so much so that in 1991, more than one third of the total population in Rajasthan was illiterate.

According to census data, 29.3 per cent of the total population was just literate with no (or incomplete) formal primary schooling; and 29 per cent had completed primary schooling in 1991 (Table 3.1). Less than one fifth (18.4 per cent) of the population was educated up to elementary Stage. On comparing educational levels of the distribution of population of Rajasthan and India, it becomes clear that the state is not far behind from the national average. But the differences widen in the case of females as we move higher up the educational pyramid.

Table 3. 1 Distribution of Population according to the levels of Education Rajasthan and India 1991

Educational Level	Rajasthan			India		
	Total	Male	Female	Total	Male	Female
Below Primary	29.3	27.7	33.9	25.2	23.8	27.8
Primary but below middle	29	28.3	31.1	28.7	27.3	31.4
Middle but below matric	18.9	19.8	16.1	20.9	21.2	20.4
Matric but below graduate	16.6	17.8	13.2	19.4	21.3	16.0
Graduate and above	6.2	6.3	5.7	5.7	6.4	4.5

Source: <http://www.censusindia.net>

Further the study of literacy rates across the various age group and sex, (see table 3.2) the scenario which come out is lopsided and skewed. The percentage of population in all the three age groups (7 years and above), 10 years and above, 15 years and above are just above the one third of the total population in case of Rajasthan. While in the same age groups, the percentage is nearing 50 per cent at

the national level. The females in Rajasthan are way far behind the country's average in all the three age-groups. They are all the more deprived in rural areas, for these age group this gender disparity should be the concern for the policy makers.

Table 3.2 Literacy Rates for Selected Age Group by Sex for Rajasthan and India 1991

Age Group	Rajasthan			India		
	Total	Male	Female	Total	Male	Female
7 years and above	38.6	55	20.4	52.2	64.1	39.3
10 years and above	38.6	55.8	19.6	51.5	64.1	37.8
15 years and above	35.2	52.2	16.6	48.2	61.6	33.7
10 –14 years	54.3	72.1	34	68.8	77	59.7
15-19 Years	53.1	72.3	29.7	65.8	75.3	54.9
15-59 years	37.2	55.4	18.1	50.8	64.2	36.3
60 years and above	14.6	24.8	4.2	27.2	40.6	12.7

Source: Census of India 1991, Rajasthan State District Profile 1991, pp. 38-44

Although the goal remains still elusive but the rapid growth achieved with constrained financial resources is commendable. The level and pace of development of education if finally reflected in the stock of educated population. The distribution levels of the population are not satisfactory : the distribution of population of educational levels is skewed largely in favour of illiterates.

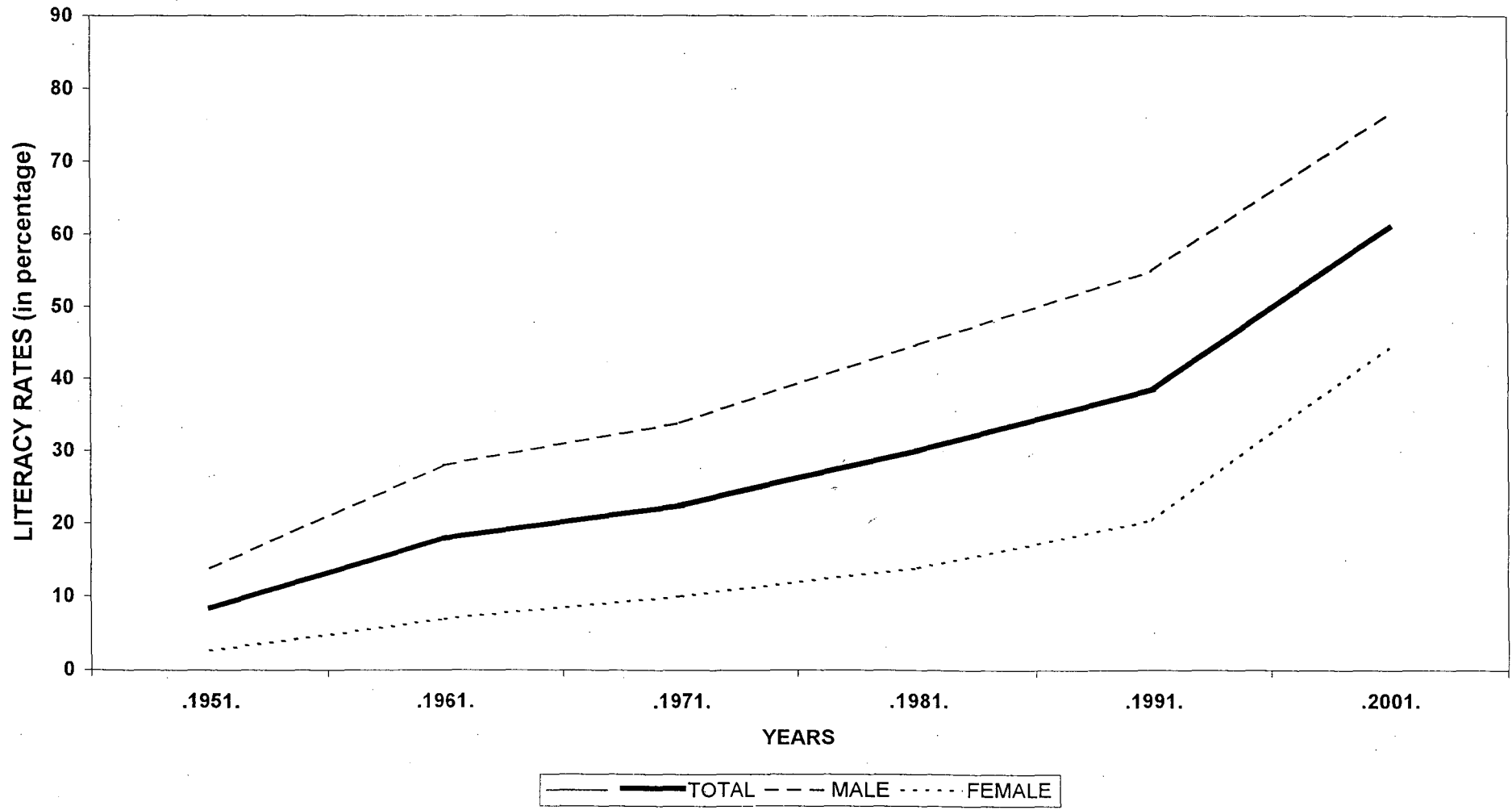
The approach to education in the post-Independence era addressed the infrastructure lacuna of the earlier period, which was endemic especially in rural areas. While in 1949, at the time of the formation of the state, the total number of primary schools was 3195, by 1981 it was 23125, and by 2002 it 32953. One peculiar thing to observe is that as we move higher up the ladder of education, the educational institutions tend to decrease and thereby shows the constraint.

Table : 3.3 Educational Institutions : Rajasthan

Educational Level	Total
Total number of primary schools	32953
Total number of upper primary schools	5616
Total number of secondary schools	2915
Total number of schools	64665

Source: Seventh All India Educational Survey

TRENDS IN LITERACY RATES IN RAJASTHAN 1951--2001



Thus in the post independence era, as a result of stress on education of masses, state of Rajasthan showed sign of improvement on educational front. But this progress has to be examined in the light of equality i.e. does this progress in education transcend across the deprived communities including women?

3.5 Literacy Scenario in Rajasthan

Despite various efforts for educational development in Rajasthan, the state continues to lag behind in educational attainment as compared to other areas in the country, particularly, with regard to women's education. The educational backwardness is both a symptom, and a cause for the state's backwardness. However, the improvement in literacy rate recorded by Rajasthan between 1991 and 2001 is the highest in India. In 2001, the state ranks 23rd in literacy achievements with an overall literacy rate of 61.03 per cent, which in 1991 was 38.6 per cent only. The literacy rate of men and women was 76.46 per cent and 44.34 per cent respectively in 2001. Female literacy has always remained much below state total literacy rate and also below male literacy (chart 1).

Table 3.4 Literacy Rates in Rajasthan and India 1951-2001

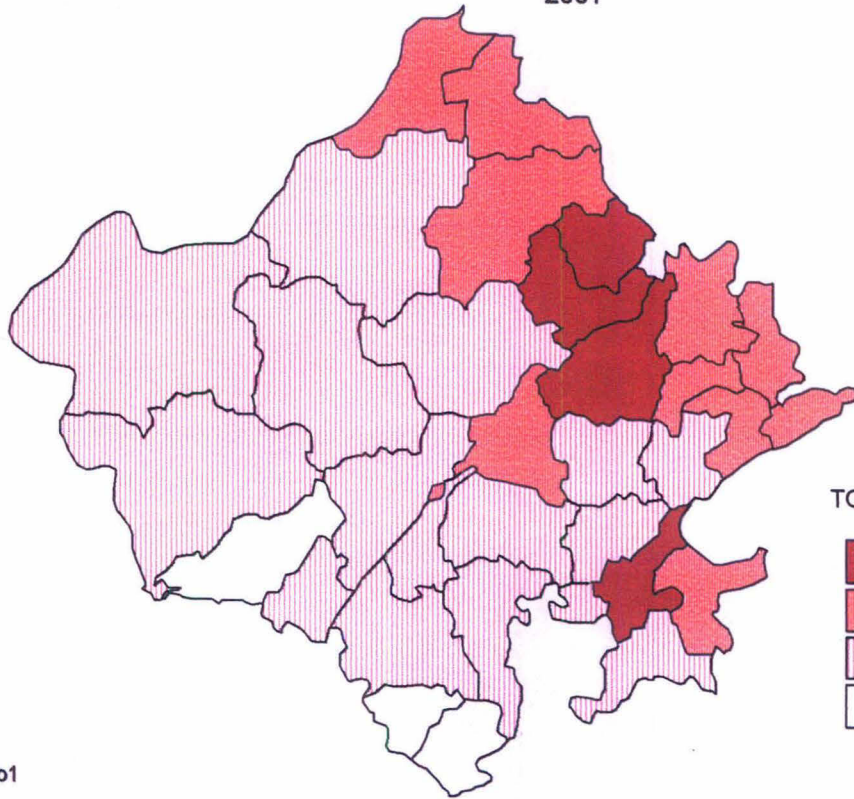
Year	Rajasthan				India			
	Total	Male	Female	Disparity	Total	Male	Female	Disparity
1951	8.50	13.88	2.66	0.77	18.3	27.2	8.9	0.58
1961	18.12	28.08	7.01	0.71	28.3	40.4	15.4	0.52
1971	22.57	33.87	10.06	0.66	34.5	46.0	22.0	0.48
1981	30.11	44.77	14.00	0.69	43.6	56.4	29.7	0.48
1991	38.55	54.99	20.44	0.68	52.2	64.1	39.3	0.44
2001	61.03	76.46	44.34	0.61	65.4	75.9	54.2	0.42

Note: Literacy rate from 1951 to 1971 census are based on population aged 5 and above, while literacy rates from 1981 to 2001 census are based on population aged 7 and above. Hence the table should be read with caution.

Source : Census of India, 2001, *Provisional Population Totals, Series-1, India, Paper – 1 of 2001*, p.115.

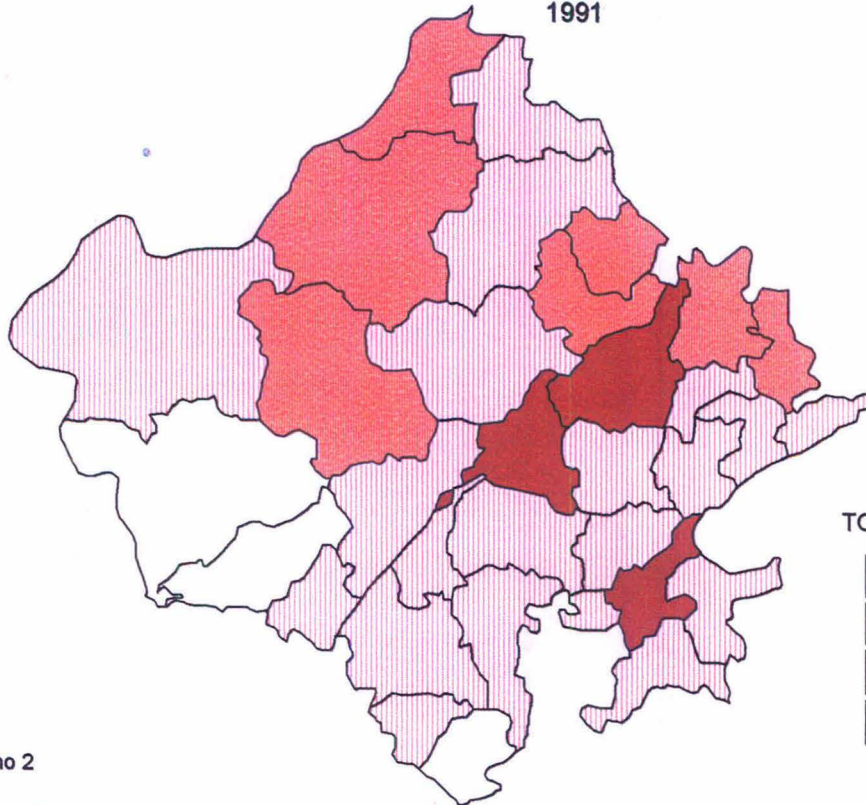
The literacy rates on the eve of independence of Rajasthan was 8.50 percent which subsequently increased to 18.12 in 1961, 22.57 in 1971, 30.11 in

RAJASTHAN LITERACY RATE 2001



Map no1

LITERACY RATE 1991



Map no 2

MAP NOT TO SCALE

1981 and 38.55 in 1991. Between 1991 and 2001, there has been 22.78 points change in total literacy and during the same period growth in total literacy, male literacy and female literacy has been 58.31 per cent, 39.04 per cent and 116.93 per cent respectively.

Despite the high decadal growth rate, the picture at the regional level is somewhat very different with marked variations in male, female and urban and rural components and also within the backward classes. As is common in the whole of the country, male literacy is much higher than female literacy and urban areas have much higher literacy rate than the rural areas.

**Table : 3.5 Rajasthan: Mean and Coefficient of Variation: Literacy
(1991- 2001)**

	2001		1991	
	Mean	C.V	Mean	C.V
Total	59.51	0.13	36.91	0.21
Male	75.22	0.08	53.12	0.16
Female	42.51	0.21	18.95	0.37

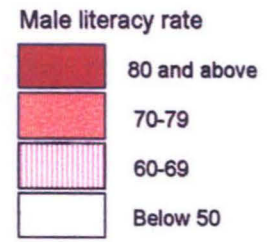
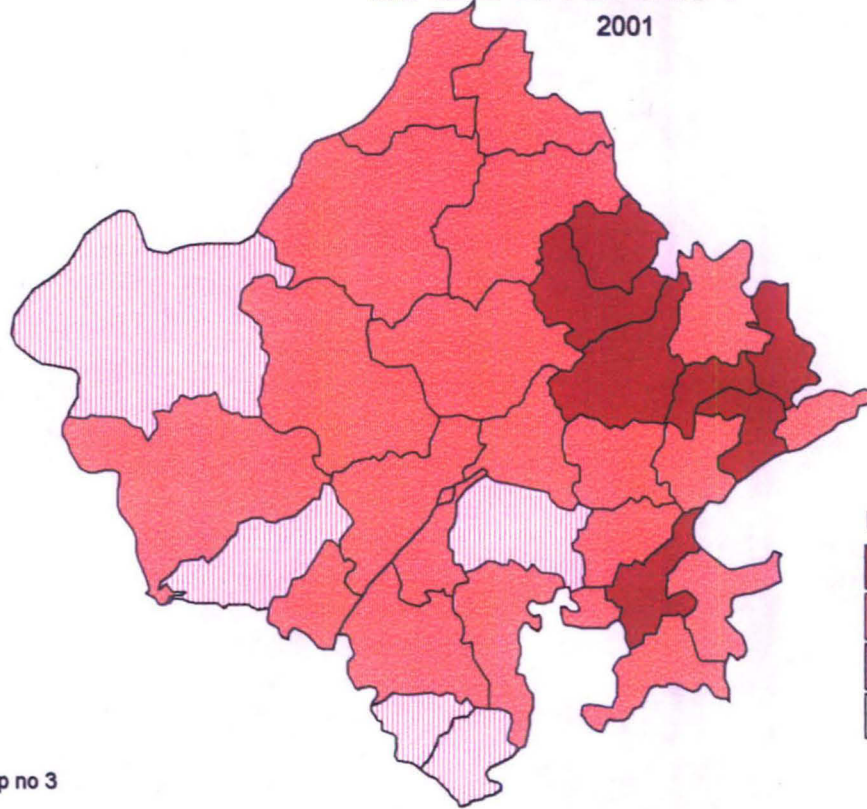
Source: Computed using census data on literacy

The magnitude of inter-district disparity has declined between 1991 and 2001 as revealed by the C.V. (see table 3.6) in 2001. The corresponding value for the male literacy are much below. Thus, less amount of regional disparity in case of male literacy. The C.V. for the female literacy is more than double (0.37 in 1991 and 0.21 in 2001) that of the C.V. for male literacy thus the extent of regional inequality is high in term of female educational front. These regional variations is the natural outcome of different levels of socio-economic development, which has the roots in its feudal past.

3.6 Spatial Pattern of Literacy

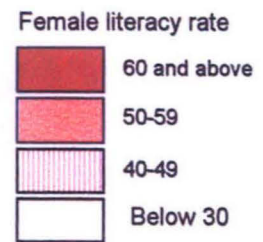
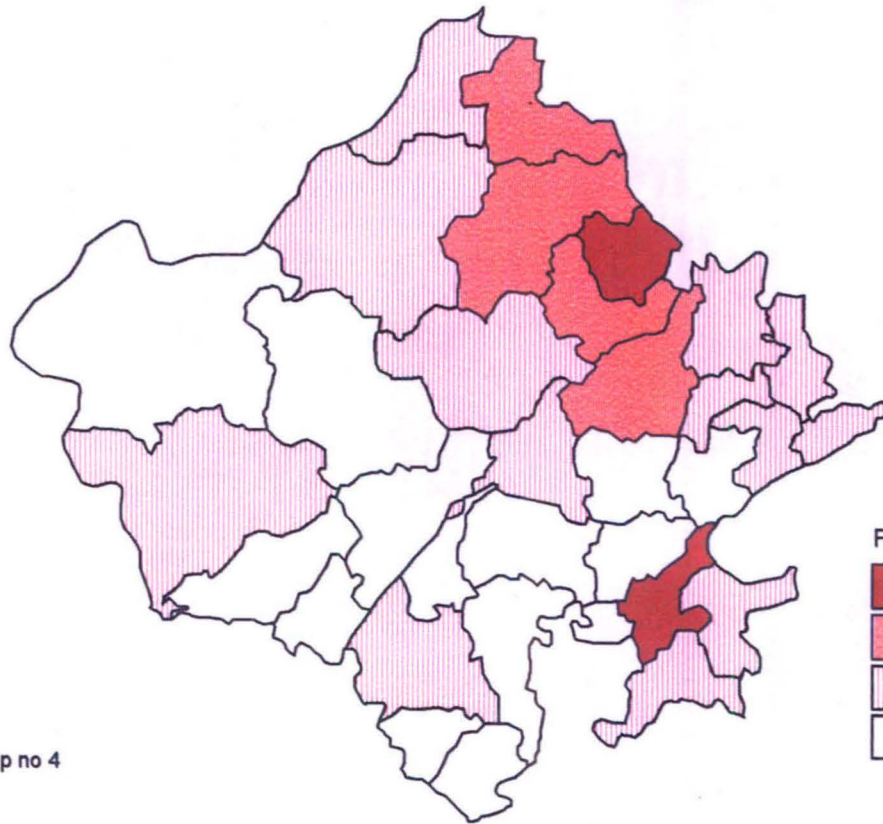
The spatial pattern of literacy in Rajasthan on the basis of the area variations in the values of male, females and general literacy rate carves out the regions with perpetual backwardness on the educational front. On the basis of literacy, the districts of Rajashtan can be classified into-

RAJASTHAN
MALE LITERACY
2001



Map no 3

FEMALE LITERACY 2001



Map no 4

Map not to scale

- (A) **Districts having very high literacy:** (above 70 per cent) in 2001 there are four districts with literacy above 70 per cent in Rajasthan and these are Kota (74.45 per cent; Jhunjhunun (73.61 per cent), Sikar (71.19 per cent) and Jaipur (70.63 per cent). Except Kota, all the other three northern districts form a cluster of high literacy. (map no. 1)
- (B) Districts having high literacy rate (between 60-70 percent): are churu (66.77 per cent), Hanumangarh (65.72), Ajmer (65.06), Ganganagar (64.84), Karauli (64.59), Bharatpur (64.24), Dausa (62.75), Alwar (62.48). Dhaulpur (60.77) and Baran (60.37). These districts, if taken along with the very high literacy rate districts mentioned above, clearly form a continuous belt along with two clusters.(map no.1). The Matsya region (Alwar, Bharatpur, Dhaulpur and Karauli) emerges as a developed area on the educational front. This scenario can be understood only by analyzing both the demand and supply factors which happen to influence the literacy levels, the demand factors more prominently rules the extent of literacy.⁴ V. Ratna Reddy and R. Nageswara Rao also supports these findings in their empirical research using regression analysis. Some of the demand factors are economic status, lack of relevance, quality of the curriculum, poor returns from education, opportunity costs, work participation rates, cost of education etc. The proportion of non-agricultural workers in these districts is also much higher than the other districts. (e.g., Kota (58.17 per cent), Jaipur (58.86 per cent), Ajmer (52.08 per cent, Dhaulpur (43.60). It is clear therefore, that the occupational structure of this area is quite diversified (the high proportion of non-agricultural workers results in higher literacy, owing to their employment in occupations in which literacy is the essential pre-requisite.

This area also has the highest male and female literacy rates. While the male literacy within this category ranges from the minimum of 75.85 per cent in

⁴ V. Ratna Reddy and R Nageswara Rao - "Primary Education Progress and constraints" (2003), EPW, March 22-29, pg. 1244.

Dhaulpur to the maximum of 86.61 percent in Jhunjhunun, the female literacy rates varies from a minimum of 42.18 per cent in Baran to 61.25 per cent in Kota. The amount of variations in the female literacy is 19.07 which is much larger than the variation in male literacy 10.76 i.e., nearly two times.

The process which results into such a spatial pattern needs to be examined at the micro level of study, since the problem of educational backwardness is region specific in nature.

Districts having moderate literacy (50-60 per cent)

The maximum number of districts i.e. 15 out of the 32 districts in 2001, falls under the moderate category, the districts are Barmer (59.65), Udaipur (59.26), Nagaur (58.26), Jhalawar (57.98), Bikaner (57.54), Jodhpur (57.38), Sawai Madhopur (57.34), Rajsamand (55.82), Bundi (55.80), Pali (54.92), Sirohi (54.39), Chittaurgarh (54.37), Tonk (52.39), Jaisalmer (51-40), and Bhilwara (51.09). Majority of these districts lies west of the Aravallis except the cluster of Southern districts comprising Udaipur, Jhalawar, Rajsamand, Chittaurgarh and Bhilwara (Mewar region). Sawai Madhopur is the only district among the Northeastern districts, which falls under moderate category. The western districts are mostly under-developed. Characterized by low urbanization, most of the people are engaged in agricultural activities and whatever small scale industry exists are usually of traditional variety. Those of the southern districts comprising the Mewar region are also under-developed due to the hilly nature of the terrain and also these districts have predominantly tribal population.

This region of moderate literacy is characterized by large differences between male and female literacy levels. The male literacy range from 76.75 per cent in Sawai Madhopur to 66.89 per cent in Jaisalmer. On the other hand, the female literacy ranges from 43.71 per cent in Udaipur to 32.25 per cent in the Jaisalmer district. The variation in male literacy rates in this category is 10.86 points while the variation is case of female literacy is 11.46 points i.e. more than that of variation in male literacy. Also the female literacy levels for all the districts

within the category is below the state average female literacy of 44.34 per cent. The deplorable condition in the case of female literacy is, that in majority of the districts the literacy levels are approximately half that of the corresponding male literacy levels. Thus there exists a large gender disparity in education.

Districts having Low Literacy (below 50 per cent)

There are three districts having literacy below 50 per cent in 2001. These are Dungarpur (48.32 per cent), Jalor (46.51 per cent) and Banswara (44.22 per cent). The districts of Dungarpur and Banswara have predominantly tribal population i.e. 65.14 per cent and 72.27 per cent respectively. These southern districts are very much under-developed in nearly all the parameters of development. These districts have more than three fourth of their population engaged in agricultural activities. The proportion of non-agricultural workers in Dungarpur is 24.36 while it is 14.44 (lowest in Rajasthan) in the case of Banswara. The Jalor district which also lies in the low category, also has only 22.73 per cent of workers engaged in non-agricultural activities with nearly one-fifth of the population as scheduled caste (18.03 per cent) and another 8.05 per cent as tribal. Also all the three districts are predominantly rural in nature with Banswara having 92.85 percent rural population, Dungarpur 92.76 per cent and Jalor 92.41 per cent. One more thing which partially happens to explain the low literacy in these districts is the high female work participation rate – Jalor (46.24 per cent), Dungarpur (45.02 per cent) and Banswara (44.12 per cent). Thus one thing which emerges from the above discussion is that high female work participation rate is associated with low literacy levels and vice-versa.

Though the male literacy is high compared to that of the female literacy, both male and female literacy is low in these districts, the male literacy ranges from 60.24 per cent in Banswara (lowest male literacy in Rajasthan; 2001) to 66.19 in Dungarpur. The female literacy ranges from 27.53 percent in Jalor to 31.22 per cent in Dungarpur. Although the variation in the case of male and

female literacy is low in these districts but the gender disparity is very high. The region presents a challenge to the policy makers on the educational front.

3.6.1 Rural-Urban Components of Literacy

The rural and urban differentials in literacy levels are very high in Rajasthan and the scenario at the gender breakup of literacy is all together more worrisome. The range for the total rural literacy is 40.78 in Banswara to 73.24 in Jhunjhunun i.e., the variation being 32.46 points. While the range in case of total urban literacy is 66.33 in Jalor to 86.19 in Udaipur i.e. the variation being 19.86 points. Thus rural areas presents a proportionately much higher variations, in literacy than the urban areas.

The rural literacy, in Rajasthan going by the general trend at the All India level is less than the corresponding urban areas. The districts that lead in rural literacy are Jhunjhunun (73. 24), Sikar (70.39), Kota (67.34), Churu (65.29), Hanumangarh (63.65), Karauli (63.62), Jaipur (62.96), Dausa (61.02), Bharatpur (61.44) and Ganganagar (60.39 per cent).

All together there are ten districts with rural literacy above 60 per cent and ten districts with rural literacy below 50 per cent. The lowest being that of 40.78 per cent in Banswara. The difference in the rural male and rural female literacy is 24.44 and 34.7 points.

Table 3.6 Gender and regional differentials in rural literacy, 2001

		Highest	Lowest	Difference
Rural	Male	86.36 Jhunjhunun	61.92 Bikaner	24.44
	Female	59.8 Jhunjhunun	25.1 Jodhpur	34.7

Thus rural women lag behind in literacy and also the variation being higher than their counterparts at the district level. Also most of the districts, the rural female literacy is exactly half or even less than half of that of the rural male literacy. Jodhpur (25.1), Sawai Madhopur (29.69), Tonk (25.62), Chittaurgarh (29.98), Bikaner (28.83), Bhilwara (26.09), and Banswara (23.78) all having rural

female literacy well below thirty percent i.e., 2/3rd females in these districts are illiterate in rural areas in 2001.

The urban literacy ranges from 66.33 in Jalor to 86.19 in Udaipur with a 19.86 points in variations. Although the variation is less in comparison to the variations in rural areas, yet it is high. The districts that are leading in respect of urban literacy (above 80 per cent) are Udaipur (86.19), Banswara (84.84), Alwar (82.27), Ajmer (81.69), Chittaurgarh (81.01), Rajasmand (80.58), Kota (80.39) and Jhalawar (80.33) i.e., mainly the Southern districts of Rajasthan. Most of these districts that happen to perform poor on the rural front have emerged as the best on the urban front. This points towards the fact that necessity for education in urban areas is much greater than in the rural areas. Urban areas have high literacy because:-

- a) Urban places are far better equipped with large number of education institutions of all grades.
- b) The urban population is socially more aware and economically more capable of imparting education to their children and
- c) finally due to rural-urban migration in search of employment.

In 2001, there are only six districts with urban literacy below 70 per cent and these are Dhaulpur (67.48) Jalor (66.33), Jodhpur (69.36), Nagaur (69.36), Tonk (69.57) and Sirohi (66.33). Further on analyzing the gender breakup of urban literacy, it emerges that all the districts of Rajasthan except Dhaulpur (78.35 per cent) have urban male literacy above 80 per cent and eight districts have urban male literacy well above 90 per cent with Udaipur occupying the first rank with 93.35 percent. On the other hand, urban female literacy is lower than the corresponding urban male literacy in all the districts. Only six districts Udaipur (78.29), Banswara (77.03), Ajmer (72.58), Alwar (71.24), Kota (70.3) and Chittaurgarh (70.19) have urban female literacy above 70 per cent. Two districts Jalor (47.97) and Sirohi (47.97) are well below the half way mark of fifty percent.

The range for urban male and urban female literacy is 15.00 and 30.32 percentage points respectively.

Table 3.7 Gender and regional differentials in urban literacy, 2001.

		Highest	Lowest	Difference
Urban	Male	93.35 (Udaipur)	78.35 (Dhaulpur)	15.00
	Female	78.29 (Udaipur)	47.97 (Jalor)	30.32

Thus the variation in urban female literacy is exactly double that of the variation in urban male literacy. So the educationally grim scenario gets even more worrisome on analyzing the rural-urban and gender breakup of literacy across the different districts of the Rajasthan. Though the male-female differences in literacy rates in urban areas are, no doubt, high, nevertheless, they indicate greater degree of freedom as compared to rural stagnation against female education.

3.7 Growth in Literacy (1991-2001)

During the last decade, the state of Rajasthan has registered the highest decadal growth rate in literacy, in India. It was 58.31 per cent in total, 39.04 is male literacy and 116.93 per cent in the case of female literacy. So one thing becomes clear that the major share in the growth in the literacy is accounted by growth in female literacy. Barmer district stands out exceptionally with top rank by registering 159.57 per cent growth in total and 101.42 per cent in male and 474.74 percent in female literacy. So one thing becomes clear that the major share in the growth in the literacy is accounted by growth in female literacy. Barmer district stands out with top rank by registering 159.57 percent growth in total and 101.42 percent in male literacy and 471.74 percent growth in female literacy. Barmer district which ranked as the lowest literacy district in 1991 with 22.98 percent literacy has achieved the 15th rank in 2001 with 59.65 percent literacy. Other districts which has registered higher growth in literacy are Jalor (95.75) Churu (92.55), Karauli (85.98), Nagaur (83.210, Jhalawar (76.02), Dhaulpur (73.18), Jaisalmer (71.050, Bundi (70.38), Sirohi (70.29), Dausa (70.19) and

Barswara (70.09). All these districts which have registered high growth rate in total literacy are those which had a low literacy in 1991. The lowest growth rate was recorded by Ajmer with 24.30 percent in 2001.

The growth in male literacy has been somewhat lower as compared to total as well as the growth in the female literacy. As mentioned earlier Barmer district was the only district with an exceptionally higher growth rate of 101.42 percent. Including Barmer there were only ten districts which could cross the 50 percent mark and these were Jalor (67.05 percent) Udaipur (52.92), Sirohi (52.64), Nagaur (52.64), Karauli (53.31), Jhalawar (54.06), Bundi (55.01), Dhaulpur (50.35) and Banswara (57.86). The lowest growth in male literacy was registered by Ajmer district with 16.31 percent. The fact which emerges is that within the southern districts (Mewar region) and to some extent (North eastern – region) has registered higher growth in the case of male literacy.

On studying the growth in female literacy, at the first sight one sees a very positive development. This positive development on the educational front has also been noticed by the PROBE⁵ Survey. Barring six districts, 26 districts have registered growth in female literacy above 100 per cent. The growth in six districts has gone above 200 per cent with Barmer registering 471.74 per cent growth. The other five districts with growth rate of female literacy above 200 are Jalor (255.23), Karauli (249.27), Churu (211.03), Dausa (204.98) and Nagaur (204.98). On the other hand, districts registering growth below hundred percent are Alwar (94.99), (76.44), Ganganagar (75.22), Jodhpur (73.52), Kota (63.07) and Bikaner (57.42). One more thing which emerges is that Dausa which was carved out of Jaipur and Karauli carved out of Sawai Madhopur have done fairly good on this front in comparison to their mother districts. All this points to a good development for the educationally deprived women of Rajasthan. But the bigger question which emerges here is that does this large growth in female literacy translates into high

⁵ Probe (1999) pp. 93-94.

literacy for women in general and less gender disparity as well as disparity across the social groups? This has to be understood and analyzed in the larger perspective of the development scenario.

Thus from the above discussion on literacy, its spatial pattern and growth, the findings can be summarized as follows:-

1. Although it is beyond doubt that the improvement in literacy rate recorded by Rajasthan between 1991 and 2001 is the highest in India, there are still large inter district variation in literacy.
2. The education scenario appears to be doubly constrained in Rajasthan: not only is the achievement level relatively low in absolute terms, but also its distribution across social groups is highly uneven. Therefore, some people suffer more than others in educational terms.
3. Large scale inequality are observed in the literacy achievements of groups located at the polar extremes of the socio-economic prosperity scale. For example, in 1991 the literacy rate of 79 per cent for men in urban areas and only about 5 per cent for scheduled caste⁶ women in rural areas represents two practically incompatible realities and raises serious doubts about the equity effects of the state's education system.
4. Educational deprivation of Rajasthani women, especially those in rural areas, continues to be high in almost all the districts of the state, despite the substantial improvements recorded in the last decade.
5. On comparing literacy rates of Rajasthan and India and changes there, indicates that the state was caught in a "**low-level, low growth**" trap, from which it seems to be emerging as indicated by data from 2001 census.
6. The Southern Rajasthan (Mewar region) and western Rajasthan (Merusthali Region), appear prominently as backward on the educational front in terms of literacy.

⁶ Literacy rate for SC and ST at the district level for 2001 census has not yet been published. So analysis on that front is not attempted here.

7. In correspondence with the general trend observed all over India that urban literacy is well above their rural counterparts, the same is true for Rajasthan.
8. On analysing the growth in literacy in the last decade, it becomes very clear that the major share in the growth in total literacy is accounted for by growth in female literacy. This is a positive step forward to achieve parity.

CHAPTER – IV

SPATIAL PATTERNS OF SCHOOL ENROLMENT IN RAJASTHAN

4.1 Before switching over to the study of Gross Enrolment Ratios (GER) at the district level in the state of Rajasthan, the important question which emerges in one's mind is – why such a study of enrolment is necessary? Or what purpose does it fulfill? The possible answer to such a question is that for achieving the constitutional goal of Universalisation of Elementary Education, one needs to get enrolled and complete successfully standards I to VIII of the education system up to 14 years of age. Thus enrolment is a necessary condition for obtaining literacy in a formal system but not sufficient to attain literacy. Higher enrolments lead to higher literacy rates provided dropouts do not increase at the same rate.

4.1.1 GROSS ENROLMENT RATIO AT THE PRIMARY LEVEL:

At the primary level of school education, Gross Enrolment Ratio (GER) for the state of Rajasthan as a whole is 100.6 in the year 2002 according to the Seventh All India Educational Survey. There are as many as 14 districts out of total 27¹ districts in the state, which have recorded higher GER than the state average. The GER exceeds 100 because of the fact that children below and above the corresponding age-group for primary level of schooling (i.e., 6-11 years), who are enrolled in class-1 to class 5 are also taken into account in enrolment figures. Hence, at times enrolment exceeds over population of corresponding age-group, particularly at primary level. Rest of the 13 districts have recorded GER's below the state average.

¹ Newly formed five districts have been merged with their corresponding original districts to ensure the comparability of enrolment figures based on sixth and Seventh All India Educational Survey. The number of districts in Rajasthan, therefore, has been reduced from the present 32, to erstwhile 27 as in 1991 census.

Table 4.1: Classification of districts according to Gross Enrolment Ratio at the Primary Level, Rajasthan, Year 2002

GER (Primary)	Districts
1. 110 and above	Dholpur, Bharatpur, Jhalawar, Alwar, Pali.
2. 100--109	Sawai Madhopur, Kota, Bundi, Jhunjhunun, Nagaur, Tonk, Ajmer, Jaipur, Sikar.
3. 95--99	Bikaner, Bhilwara, Ganganagar, Sirohi, Chittaurgarh, Churu.
4. below 95	Jodhpur, Jalor, Dungarpur, Jaisalmer, Udaipur, Barmer, Banswara.

Source: Computed using the enrolment data from the Seventh All India Educational Survey

Table 4.2: Classification of districts according to Gross Enrolment Ratio at the Primary Level, Rajasthan, Year 1993

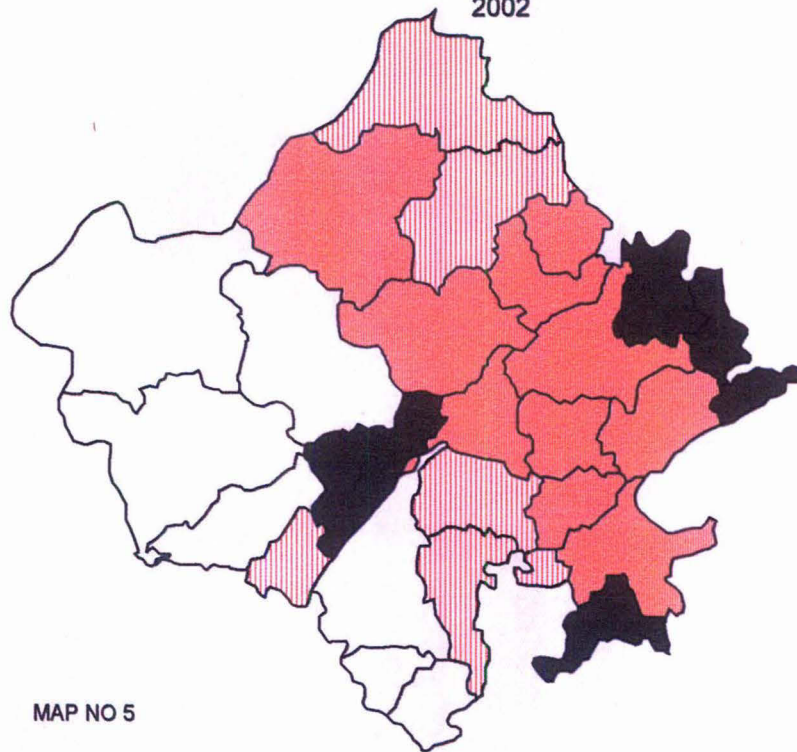
GER (Primary)	Districts
1. 90 and above	Sirohi, Ajmer, Kota, Dungarpur, Pali
2. 80--89	Jhunjhunun, Jaipur, Alwar, Bundi, Sikar, Barmer, Jhalawar, Chittaurgarh, Banswara
3. 70--79	Dholpur, Udaipur, Ganganagar, Jodhpur, Tonk, Churu, Bikaner, Nagaur, Jaisalmer
4. below 70	Sawai Madhopur, Bharatpur, Bhilwara, Jalor

Source: Computed using the enrolment data from the Sixth All India Educational Survey

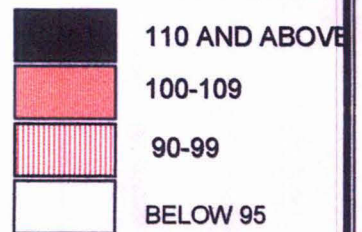
Such a classification presents a distinct spatial pattern. Regional inequality in levels of enrolment is obvious. In the year 2002, all the three northeastern districts adjoining Uttar Pradesh and Haryana have high GERs, well above 110. Eastern and South-Eastern districts adjoining, Madhya Pradesh follow them closely alongwith Central districts. Northern districts and parts of Southern Rajasthan come next in terms of GERs, while almost all the western and southern districts are situated at the end with GERs

RAJASTHAN GROSS ENROLMENT RATIOS AT PRIMARY LEVEL

2002



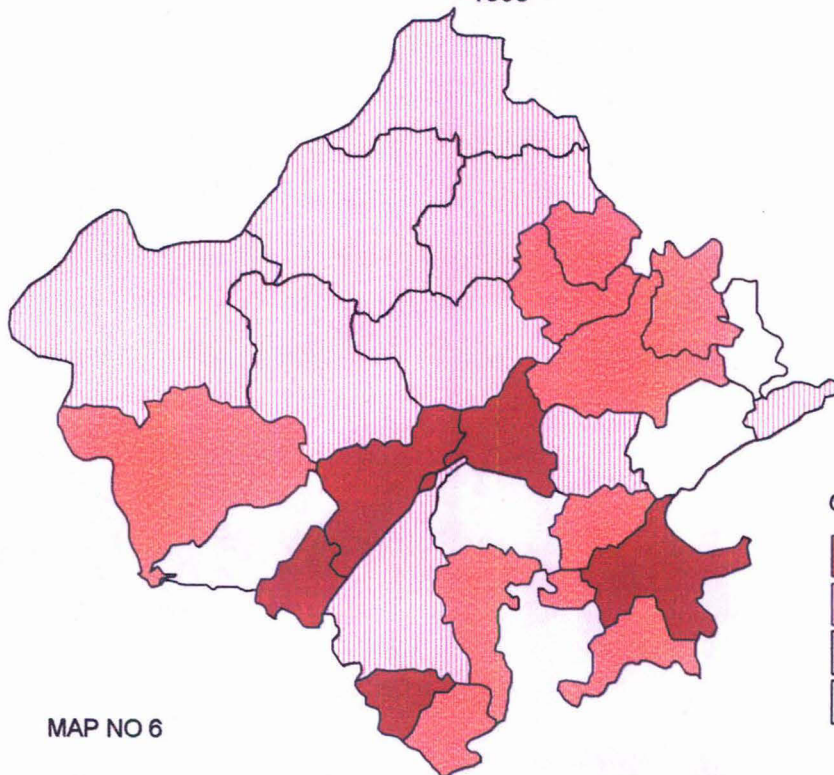
GROSS ENRILMENT RATIOS



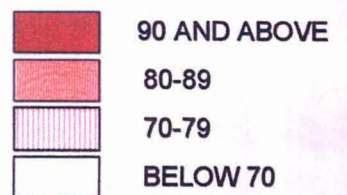
MAP NO 5

GROSS ENROLMENT RATIOS AT PRIMARY LEVEL

1993



GROSS ENROLMENT RATIOS



MAP NO 6

MAP NOT TO SCALE

below 95. The distance from the state average (100.6) ranges from 15.9 percentage points on the negative side as in case of Banswara (GER 84.7), to 19.1 percentage points on positive side recorded for Dholpur (GER 119.7). Thus, there is a sort of gradation among districts in terms of GERs at the primary level. (map 5)

A similar kind of spatial pattern emerges in the year 1993 as well. (map 6), although the levels of enrolment are relatively low. On comparison of both the figures, it is clear that certain northeastern districts have moved up quite fast, while Dungarpur and Banswara have remained stagnant in terms of GER and therefore have worsened their relative position.

Enrolment levels broadly confirm the achievements in literacy levels due to the obvious association between the two. As analysed earlier, literacy levels are high in almost all the districts of northern, north-eastern and south-eastern Rajasthan. As one moves from east to west towards desert districts and from north to south toward districts with high tribal population, literacy rates gradually fall. It is therefore important for policymakers and education administrators to work for better enrolment and retention rates to improve the standards of literacy in educationally backward districts.

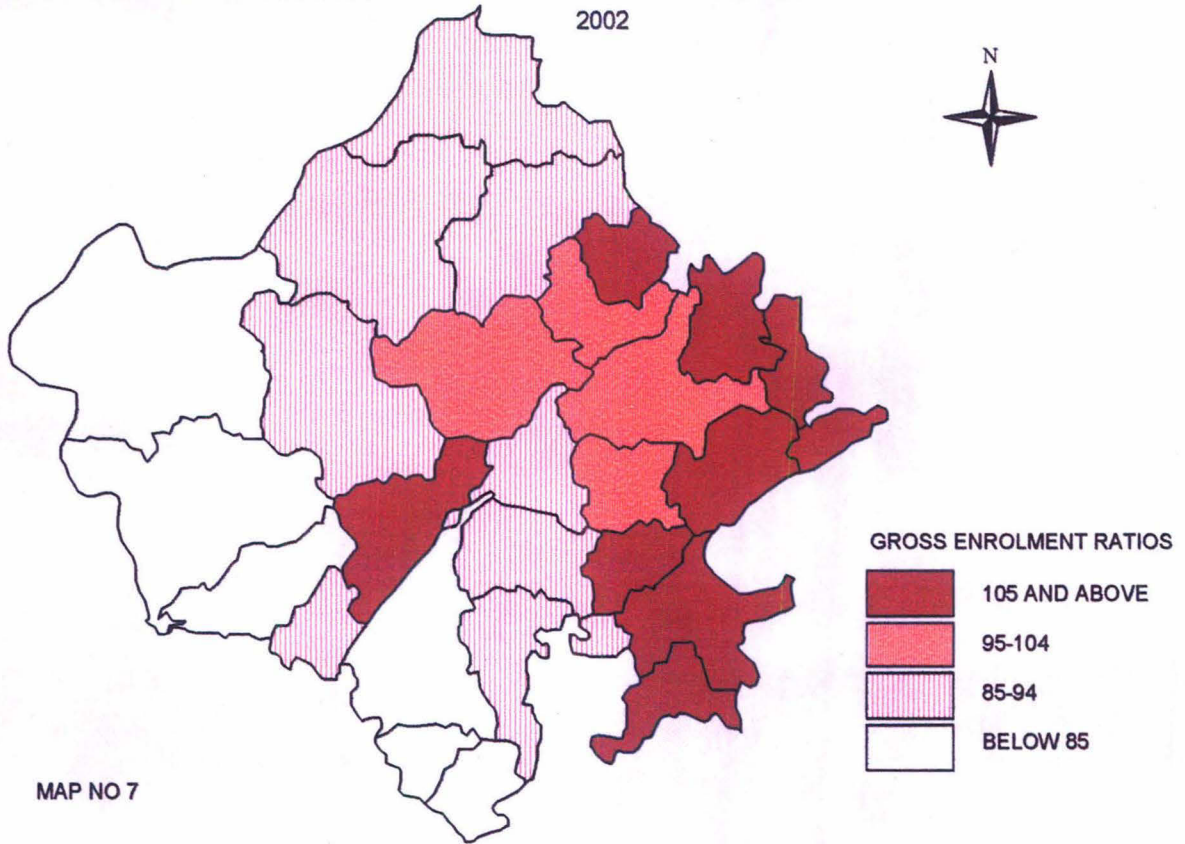
Gross Enrolment Ratio among Girls at the Primary Level

For the state as whole, GER among girls at the primary level is 95.4 which lags behind the total GER by 5.2 points. Among districts, Dholpur tops the list with 124.6 as GER among girls. On the other hand, Barmer with 76.4 GER fares the worst. The range between the highest and the lowest ratio comes out to be 48.2 which is higher than the range in terms of total GER. This brings out the fact that inter-district variations are sharper for girls' enrolment levels than the levels of total enrolment.

RAJASTHAN

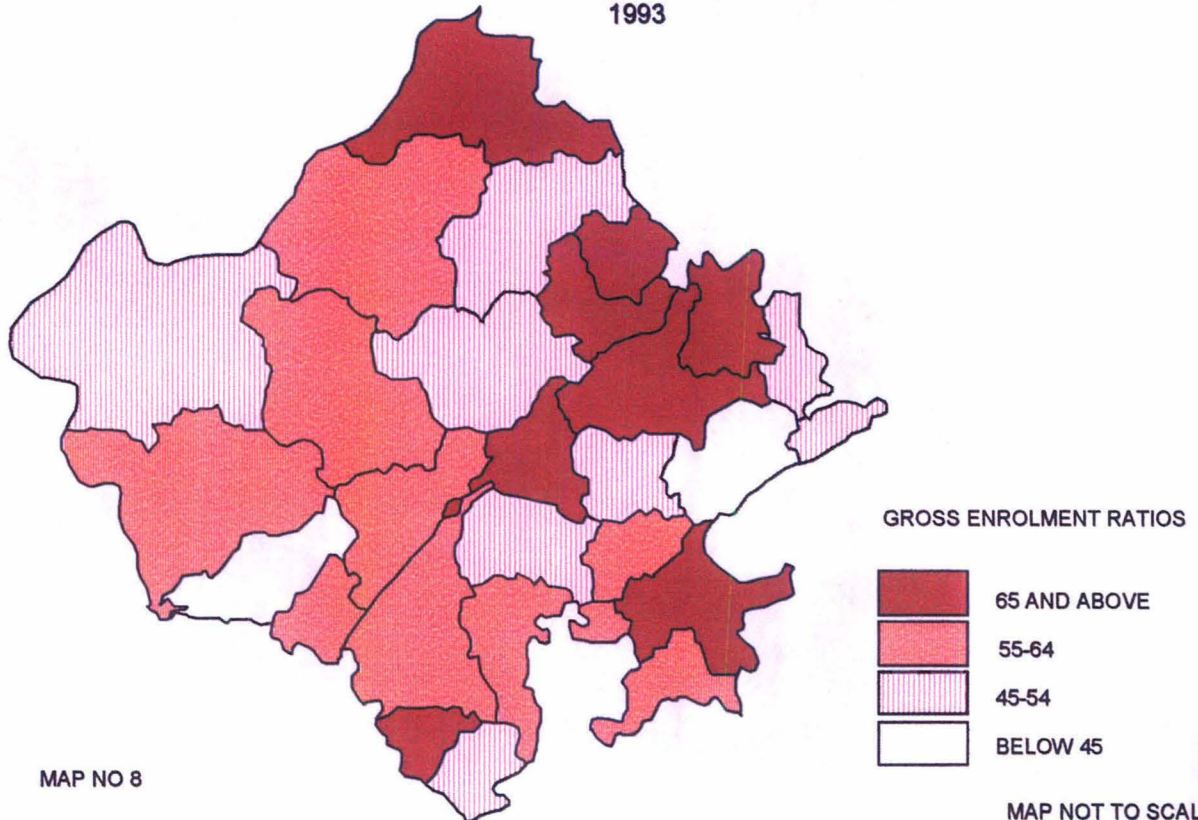
GROSS ENROLMENT RATIOS AMONG GIRLS AT PRIMARY LEVEL

2002



GROSS ENROLMENT RATIOS AMONG GIRLS AT PRIMARY LEVEL

1993



MAP NOT TO SCALE

Table 4.3: Classification of districts according to Gross Enrolment Ratio among Girls at the Primary Level, Rajasthan, Year 2002

GER among girls (Primary)	Districts
1. 105 and above	Dholpur, Bharatpur, Jhalawar, Alwar, Kota, Pali, Sawai Madhopur, Jhunjhunun, Bundi
2. 95—104	Nagaur, Tonk, Jaipur, Sikar
3. 85—94	Ajmer, Ganganagar, Bikaner, Churu, Bhilwara, Chittaurgarh, Jodhpur, Sirohi
4. below 85	Udaipur, Dungarpur, Jalor, Jaisalmer, Banswar, Barmer

Source: Computed using the enrolment data from the seventh All India Educational Survey
(See map 7)

Table 4.4: Classification of districts according to Gross Enrolment Ratio among Girls at the Primary Level, Rajasthan, Year 1993

GER among girls (Primary)	Districts
1. 60 and above	Jhunjhunun, Kota, Ajmer, Sikar, Dungarpur, Jaipur, Ganganagar, Alwar
2. 50--59	Pali, Barmer, Bundi, Jhalawar, Sirohi, Udaipur, Chittaurgarh, Jodhpur, Bikaner
3. 40--49	Dholpur, Churu, Banswara, Nagaur, Bhilwara, Tonk, Bharatpur, Jaisalmer
4. below 40	Sawai Madhopur, Jalor

Source: Computed using the enrolment data from the sixth All India Educational Survey
(map 8)

Spatial pattern of GER among girls closely follow the pattern of total GER(map 7 and 8). All the eastern and southeastern districts have recorded the GERs above 105 among girls. The enrolment levels are between 85 and 105 for central and northern districts. Jaipur, the state capital also falls in

this category. GER for southern and western districts falls in the range of 75-85. About one-fourth of girls in the school-going age-group of (6-11 years) in Banswara and Barmer districts are not enrolled.

It is an issue of serious concern that despite the improvement in enrolment level of girls across all the districts, regional disparities still prevail, rather exhibit a sharper regional contrast.

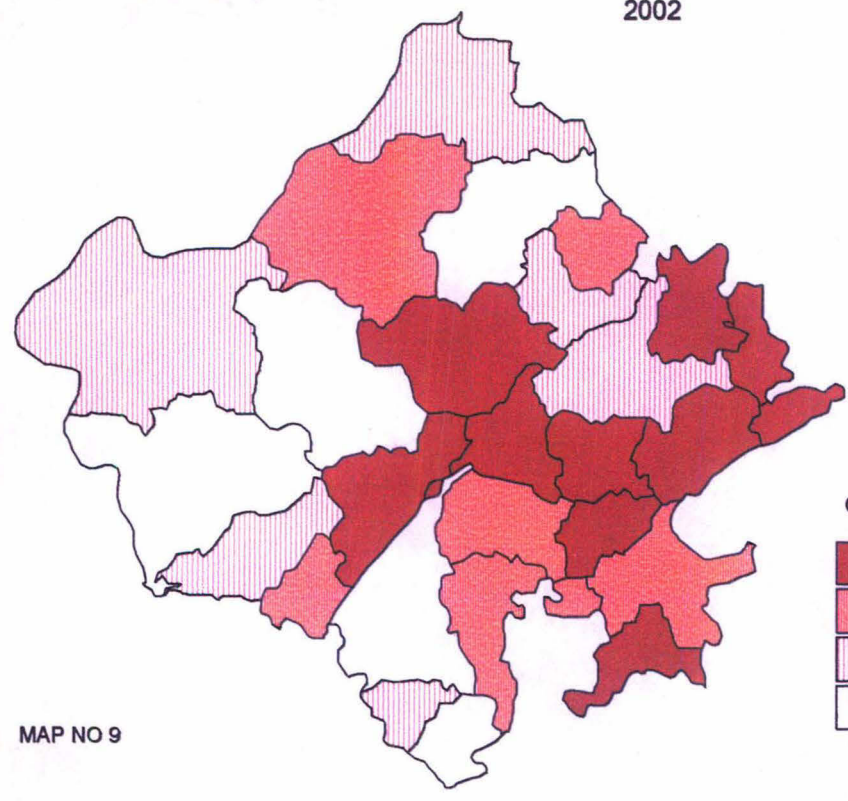
These findings demand a deeper probe into the factors (social, economic and spatio-cultural) that influence the enrolment levels among girls. It is the age-old prejudice against girl-education and social customs at regional and local level that account for dismal enrolment levels among girls in some parts of the state or is it the differential achievement in infrastructural development that is accountable for inter-regional variations?

Gross Enrolment Ratio among Boys at the Primary Level





Gross Enrolment Ratio among boys at the primary level is 105.3 for the state as a whole. 15 districts are above the state average. The highest and lowest GER has been recorded in Alwar (121.0) and Banswara (92.3) respectively, thus the range between the highest and lowest GERs is 28.7 points among boys as compared to 48.2 points among girls. Inter-district variations among boys' GERs, therefore are less marked than that of girls' GERs.

However, the spatial pattern of boys' GERs are not as contiguous as has been the case with total GERs as well as the girls' GERs.(map 9) . In general, eastern and central districts lead others in terms of GER among boys followed by southeastern and northern districts. Western and southern districts are at the other end with a few exceptions in between. But the important point to note here is that only 5 out of 27 districts have GERs below 100, while no district has recorded GER below 90.

RAJASTHAN
GROSS ENROLMENT RATIOS AMONG BOYS AT PRIMARY LEVEL
2002

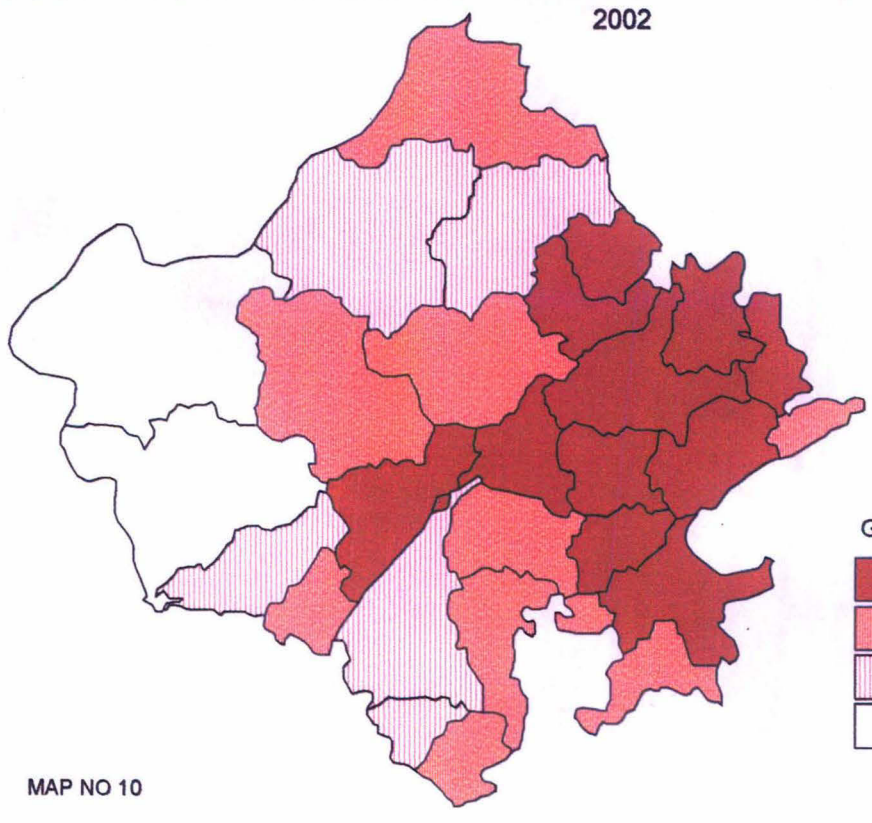


GROSS ENROLMENT RATIOS





	110 AND ABOVE
	105-109
	100-104
	BELOW 100

MAP NO 9

GROSS ENROLMENT RATIOS AMONG BOYS AT UPPER PRIMARY LEVEL
2002



GROSS ENROLMENT RATIOS

	77 AND ABOVE
	67-76
	57-66
	BELOW 57

MAP NO 10

MAP NOT TO SCALE

Table 4.5: Classification of districts according to Gross Enrolment Ratio among Boys at the Primary Level, Rajasthan, Year 2002

GER among boys (Primary)	Districts
1. 110 and above	Alwar, Pali, Jhalawar, Bharatpur, Dholpur, Ajmer, Sawai Madhopur, Bundi
2. 105--109	Tonk, Nagaur, Kota, Sirohi, Jhunjhunun, Bikaner, Bhilwara
3. 100--104	Chittaurgarh, Jaipur, Sikar, Jalor, Ganganagar, Dungarpur, Jaisalmer
4. below 100	Churu, Jodhpur, Udaipur, Barmer, Banswara

Source: Computed using the enrolment data from the seventh All India Educational Survey

Table 4.6: Classification of districts according to Gross Enrolment Ratio among Boys at the Primary Level, Rajasthan, Year 1993

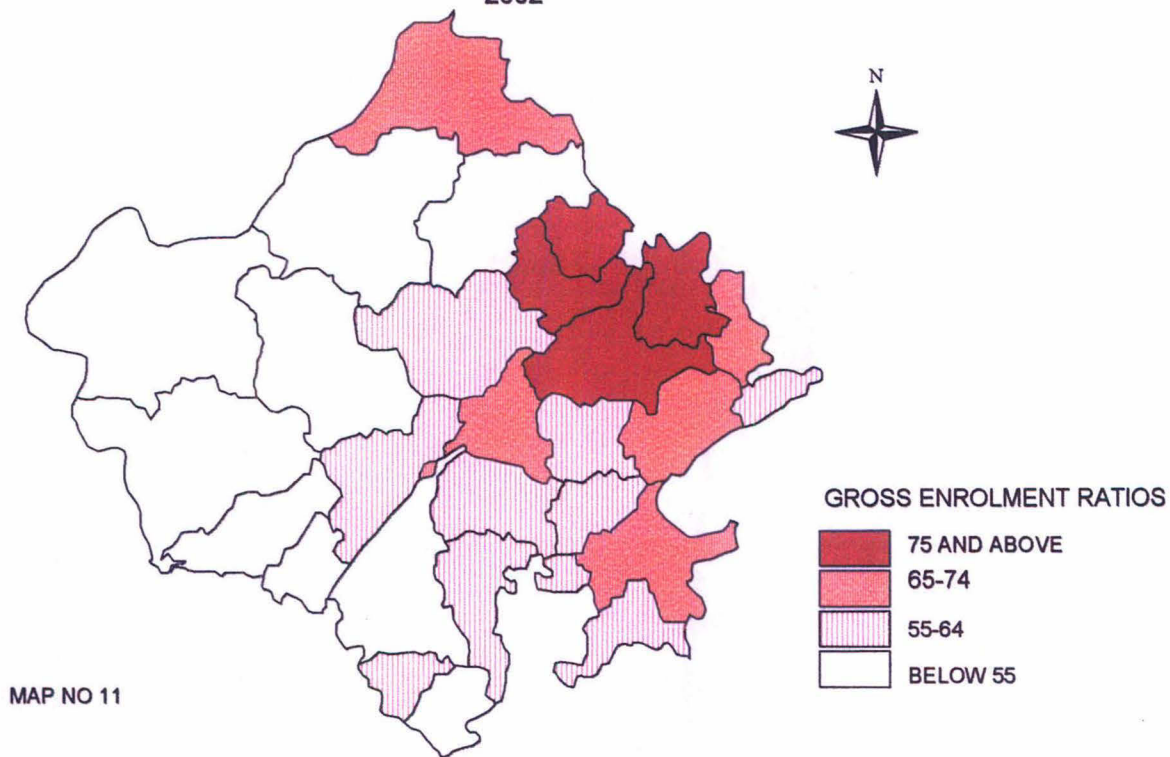
GER among boys (Primary)	Districts
1. 110 and above	Sirohi, Pali, Ajmer, Dungarpur, Bundi, Kota, Banswara
2. 100--109	Jaipur, Chittaurgarh, Alwar, Barmer, Tonk, Jhalawar, Udaipur, Sikar, Dholpur, Jhunjhunun
3. 90—99	Jodhpur, Churu, Nagaur, Jaisalmer, Bikaner, Sawai Madhopur, Ganganagar
4. below 90	Bharatpur, Bhilwara, Jalor

Source: Computed using the enrolment data from the sixth All India Educational Survey

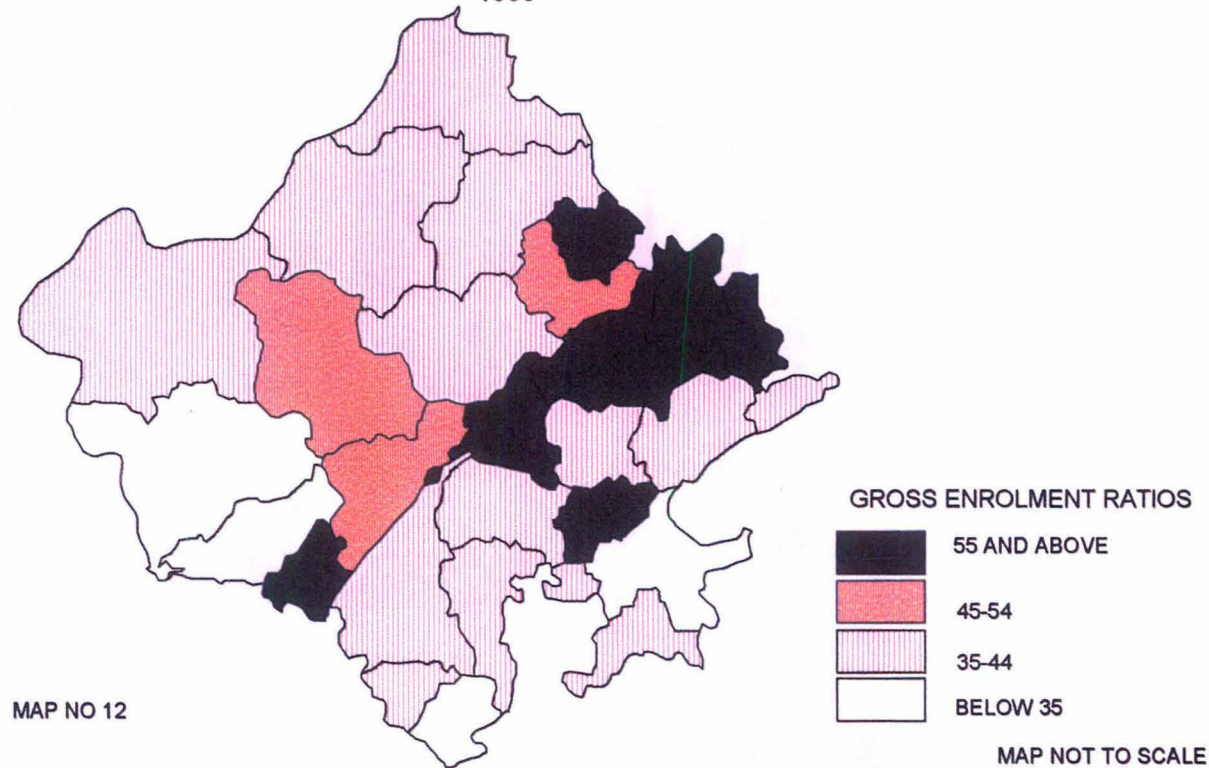
4.1.2 GROSS ENROLMENT RATIO AT THE UPPER PRIMARY LEVEL:

Gross Enrolment Ratio at the upper primary level points to the continuity and educational advancement after the completion of primary level schooling. In other ways, it indicates the distance yet to be covered

RAJASTHAN
GROSS ENROLMENT RATIOS AT UPPER PRIMARY LEVEL
 2002



GROSS ENROLMENT RATIOS AT UPPER PRIMARY LEVEL
 1993



towards the aim of universalisation of elementary education. For the state as a whole, GER at the upper primary level is 61 only which means that the state has a serious challenge of putting its 39 children who are out of school among every 100 children, under upper-primary enrolment to achieve the goal of universal elementary education.

As compared to the range at the primary level GERs (35.0), the range in upper-primary GERs is more pronounced (51.9 points). The highest GER at the upper primary level is 86.12 for Jhunjhunun. It is slightly above the lowest recorded GER at primary level (i.e. 84.7 for Banswara. This reflects the poor status of Rajasthan in terms of upper-primary enrolment achievements.

Table 4.7: Classification of districts according to Gross Enrolment Ratio at the Upper Primary Level, Rajasthan, Year 2002

GER (Upper Primary)	Districts
1. above 75	Jhunjhunun, Sikar, Alwar, Jaipur
2. 65--75	Kota, Sawai Madhopur, Ganganagar, Bharatpur, Ajmer
3. 55--65	Bundi, Tonk, Pali, Dholpur, Nagaur, Jhalawar, Chittaurgarh, Bhilwara, Dungarpur
4. 45—55	Churu, Banswara, Udaipur, Bikaner, Sirohi, Jodhpur
5. below 45	Jalor, Jaisalmer, Barmer

Source: Computed using the enrolment data from the seventh All India Educational Survey (map 11)

Table 4.8: Classification of districts according to Gross Enrolment Ratio at the Upper Primary Level, Rajasthan, Year 1993

GER (Upper Primary)	Districts
1. above 55	Bundi, Jhunjhunun, Alwar, Jaipur, Sirohi, Ajmer, Bharatpur
2. 45—55	Sikar, Pali, Jodhpur
3. 35—45	Ganganagar, Tonk, Sawai Madhopur, Bhilwara, Chittaurgarh, Dholpur, Nagaur, Churu, Udaipur, Bikaner, Dungarpur, Jhalawar, Jaisalmer
4. below 35	Kota, Banswara, Barmer, Jalor

Source: Computed using the enrolment data from the sixth All India Educational Survey (map 12)

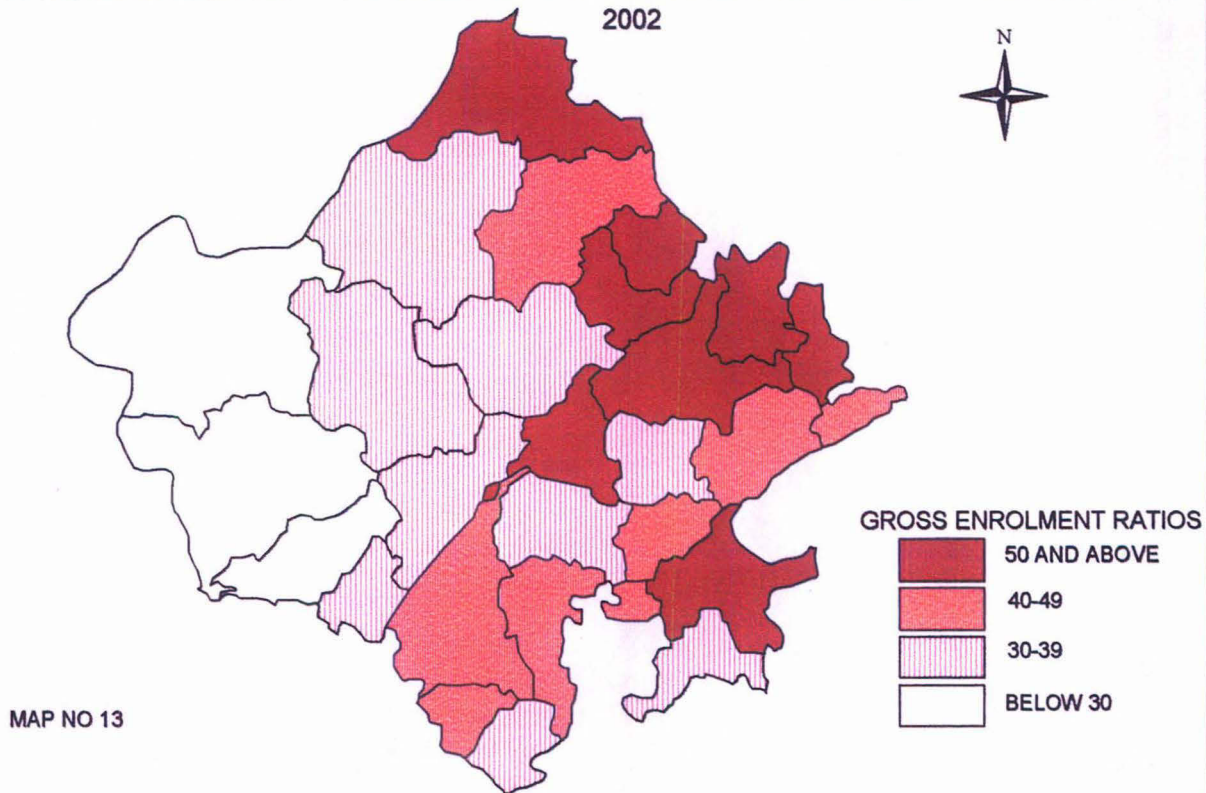
The general pattern of enrolment levels of primary and upper primary level reveals that for all the districts, GERs at upper primary level are much lower than the GERs at primary levels. Northeastern districts are not at the top in case of GERs at the upper primary level as it was in case of primary level GERs. In fact, Dholpur strikingly is at a much lower place (moderate class), at upper-primary level after having the highest place among primary level GERs. Southern and western districts continue to lag behind in case of GERs at the upper-primary level as well. (map 11 and 12). Therefore, these can be termed as areas of continuous educational backwardness.

Gross Enrolment Ratio among Girls at the Upper Primary Level

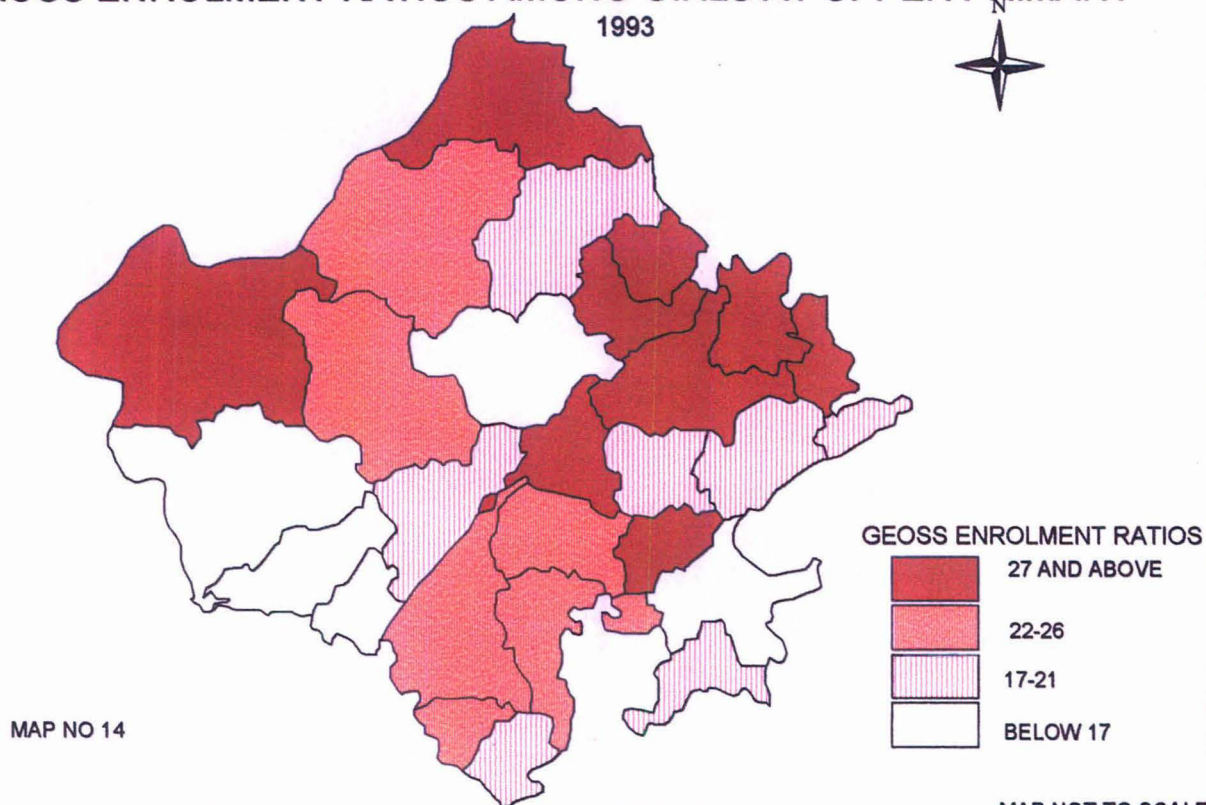
Among girls, GER at upper primary level is only 45.2 for the state as a whole. This reflects very poorly on educational opportunities available to girl children in the state at upper primary level. It indicates that more than half of the girl-child population in the state is not enrolled at the upper-primary level. Unless the policy-planners target this untapped potential of girl children, the state will continue to lag behind the other developed states in terms of human development indicators (viz., health, literacy etc.)

Inter-district variations are very much pronounced in case of GER among girls at the upper primary level. (see map 9 and 10). Jhunjhunun with 76.1 GER and Barmer with only 16.8 GER reveal an enormous range of 59.3 points (about 60 points). In Jalore, Jaisalmer and Barmer, more than 80% of girls are not enrolled at upper primary level. This is an alarming figure which has to be taken care of with utmost urgency, clear understanding of the factors, effective planning and fruitful implementation.

RAJASTHAN
GROSS ENROLMENT RATIOS AMONG GIRLS AT UPPER PRIMARY
2002



GROSS ENROLMENT RATIOS AMONG GIRLS AT UPPER PRIMARY
1993



MAP NOT TO SCALE

**Table 4.9: Classification of districts according to Gross
Enrolment Ratio among Girls at the Upper Primary Level, Rajasthan,
Year 2002**

GER among girls (Upper Primary)	Districts
1. above 50	Jhunjhunun, Sikar, Jaipur, Alwar, Kota, Ganganagar, Bharatpur, Ajmer
2. 40—50	Bundi, Dungarpur, Sawai Madhopur, Dholpur, Churu, Chittaurgarh, Udaipur
3. 30—40	Bhilwara, Pali, Jhalawar, Nagaur, Bikaner, Banswara, Tonk, Jodhpur, Sirohi
4. below 30	Jalor, Jaisalmer, Barmer

Source: Computed using the enrolment data from the seventh All India Educational Survey
(map 13)

**Table 4.10: Classification of districts according to Gross
Enrolment Ratio among Girls at the Upper Primary Level, Rajasthan,
Year 1993**

GER among girls (Upper Primary)	Districts
1. above 27	Bundi, Jhunjhunun, Ajmer, Jaipur, Alwar, Ganganagar, Bharatpur, Sikar
2. 22—27	Bikaner, Jodhpur, Udaipur, Bhilwara, Dungarpur, Chittaurgarh
3. 17—22	Churu, Pali, Sawai Madhopur, Tonk, Jhalawar, Dholpur, Banswara
4. below 17	Kota, Nagaur, Sirohi, Jaisalmer, Jalor, Barmer

Source: Computed using the enrolment data from the sixth All India Educational Survey
(map 14)

Dhaulpur, Pali, Jhalawar and Nagaur are at a much lower position in case of upper primary level GER than that in primary level GER, while, interestingly, Dungarpur and Udaipur are placed much better vis-à-vis other districts in case of upper primary enrolment levels than their lower placement in primary level enrolment positions.

Gross Enrolment Ratio among Boys at the Upper Primary Level

In terms of GER among boys at the upper-primary level, the figure for Rajasthan as a whole is 74.9, i.e., one fourth of boys at the upper primary level are not enrolled in schools. The range in enrolment at this level is 47.9 points between Jhunjhunun (95.3) and Jaisalmer (47.4) Jhunjhunun has secured that top position in case of total, boys and girl's enrolment ratios at the upper primary levels.

Table 4.11: Classification of districts according to Gross Enrolment Ratio among Boys at the Upper Primary Level, Rajasthan, Year 2002

GER among boys (Upper Primary)	Districts
1. above 77	Jhunjhunun, Sikar, Jaipur, Alwar, Sawai Madhopur, Kota, Tonk, Ajmer, Pali, Bundi, Bhartpur
2. 67—77	Nagaur, Ganganagar, Jhalawar, Sirohi, Bhilwara, Banswara, Chittaurgarh, Dholpur, Jodhpur
3. below 67	Udaipur, Bikaner, Dungarpur, Churu, Jalor, Barmer, Jaisalmer

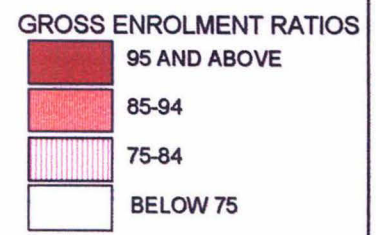
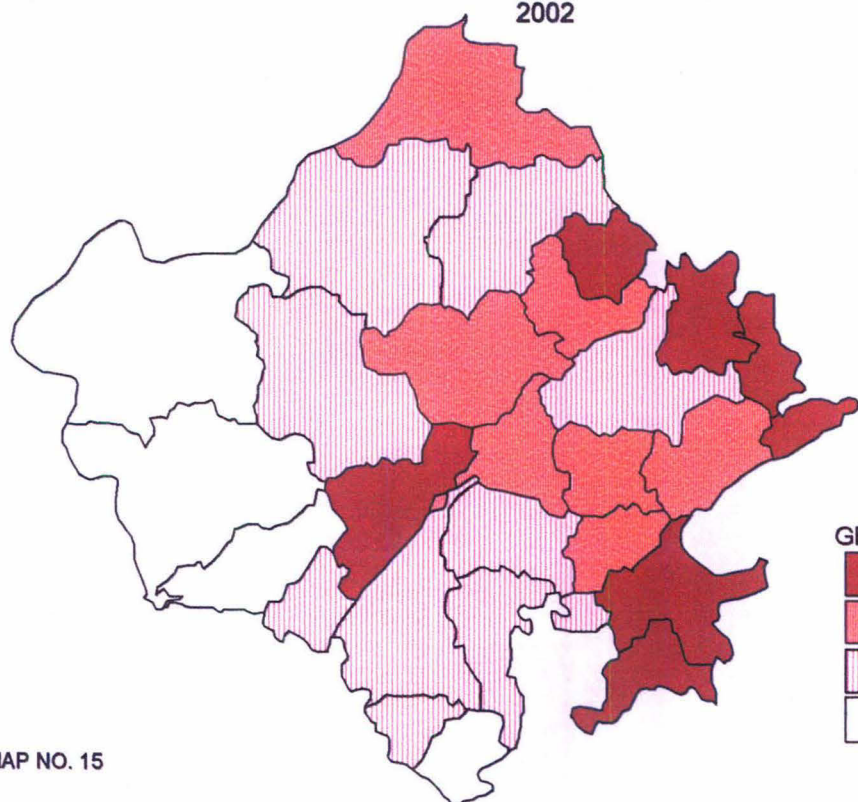
Source: Computed using the enrolment data from the seventh All India Educational Survey

Table 4.12: Classification of districts according to Gross Enrolment Ratio among Boys at the Upper Primary Level, Rajasthan, Year 1993

GER among boys (Upper Primary)	Districts
1. above 67	Bundi, Sirohi, Jhunjhunun, Alwar, Jaipur, Sikar, Bharatpur, Ajmer, Pali
2. 57—67	Tonk, Nagaur, Jodhpur, Sawai Madhopur, Churu, Chittaurgarh, Dholpur, Bhilwara, Ganganagar, Udaipur
3. below 57	Jaisalmer, Bikaner, Dungarpur, Jhalawar, Barmer, Kota, Banswara, Jalor

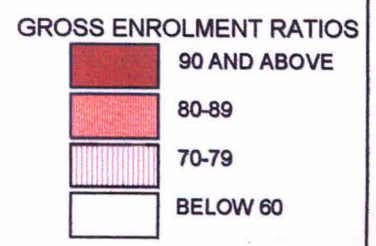
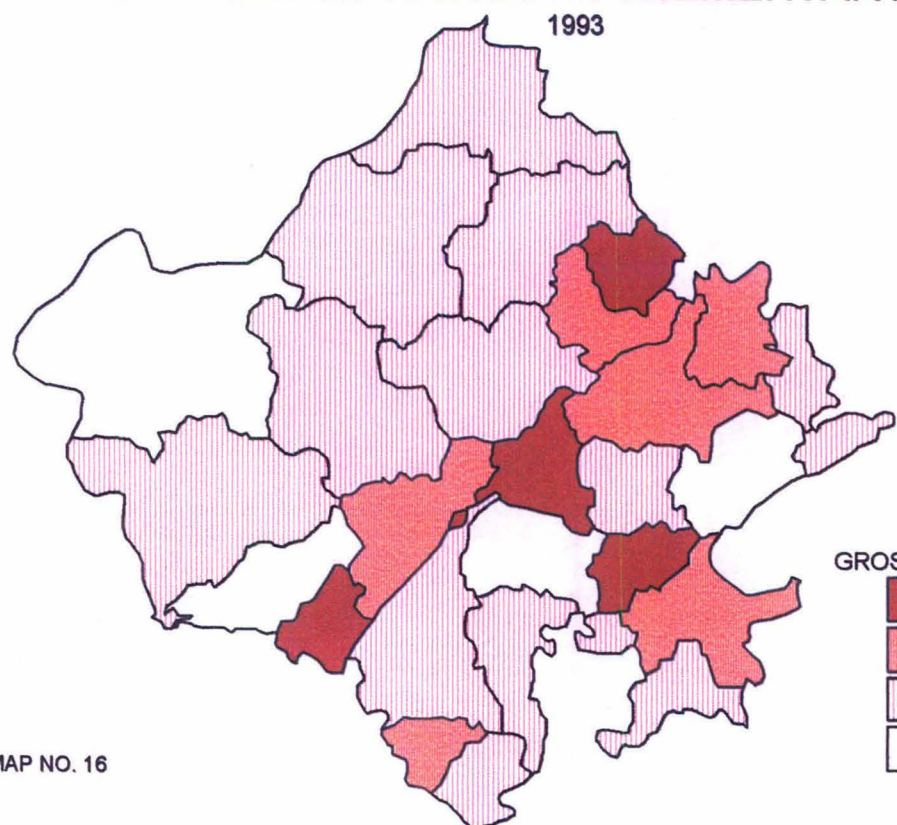
Source: Computed using the enrolment data from the sixth All India Educational Survey

RAJASTHAN
GROSS ENROLMENT RATIOS AT ELEMENTARY LEVEL
2002



MAP NO. 15

GROSS ENROLMENT RATIOS AT ELEMENTARY LEVEL
1993



MAP NO. 16

MAP NOT TO SCALE

4.1.3 GROSS ENROLMENT RATIO AT THE ELEMENTARY LEVEL:

In the year 2002, Gross Enrolment Ratio for Rajasthan at the elementary level is 86.9. The highest GER at the elementary level has been recorded in Alwar followed by Bharatpur and Jhunjhunun. On the other hand lowest GER has been recorded on Barmer followed by Jaisalmer and Banswara.

From the map 11, the spatial patterns of GER at the Elementary Level are clearly revealed. Districts of eastern (Matsya Region) and southeastern (Hadoti Plateau) Rajasthan alongwith Pali and Jhunjhunun have recorded high GERs. Districts in the central-east Rajasthan and northern districts of Ganganagar and Hanumangarh form the second rung. Districts in the periphery of central Rajasthan come next, while western desert districts alongwith extreme southern district of Banswara are the backward districts in terms of Gross Enrolment Ratio at the Elementary Level.

Table 4.13: Classification of districts according to Gross Enrolment Ratio at the Elementary Level, Rajasthan, Year 2002

GER (Elementary)	Districts
1. above 95	Alwar, Bharatpur, Jhunjhunun, Dholpur, Jhalawar, Kota
2. 85--95	Pali, Sawai Madhopur, Sikar, Bundi, Ajmer, Tonk, Nagaur, Ganganagar
3. 75--85	Bikaner, Bhilwara, Chittaurgarh, Jaipur, Sirohi, Churu, Jodhpur, Dungarpur, Udaipur
4. below 75	Jalor, Banswara, Jaisalmer, Barmer

Source: Computed using the enrolment data from the seventh All India Educational Survey (map 15)

Table 4.14: Classification of districts according to Gross Enrolment Ratio at the Elementary Level, Rajasthan, Year 1993

GER (Elementary)	Districts
1. above 80	Sirohi, Bundi, Jhunjhunun, Ajmer
2. 70—80	Jaipur, Alwar, Sikar, Pali, Dungarpur, Kota
3. 60--70	Chittaurgarh, Jodhpur, Dholpur, Ganaganagar, Udaipur, Jhalawar, Tonk, Barmer, Bharatpur, Banswara, Churu, Nagaur, Bikaner
4. below 85	Sawai Madhopur, Jaisalmer, Bhilwara, Jalor

Source: Computed using the enrolment data from the sixth All India Educational Survey (map 16)

Gross Enrolment Ratio among girls at the elementary level is 78.2 and that among boys is 94.6 for the state as a whole. The highest GER among girls has been recorded in Bharatpur followed by Dholpur, while Barmer has recorded the lowest GER. In case of GER among boys at the elementary level, Alwar is at the top followed by Pali and Barmer is again at the bottom followed by Jaisalmer.

4.2 CHANGE IN GROSS ENROLMENT RATIO DURING THE PERIOD BETWEEN SIXTH (1993) AND SEVENTH (2002) ALL INDIA EDUCATIONAL SURVEYS

Growth in GER at the Primary Level

The progressive development of educational levels in Rajasthan is well brought out by the analysis of change in enrolment levels over a period of 9 years of the sixth and seventh All India Educational Surveys. The change in primary level GERs have been quite impressive. The state has marched ahead by 20.1 points from 80.5 in 1993 to 100.6 in 2002 registering a growth of 24.9 percent. During the last decade the state has gained momentum on the educational front which has resulted in 22.78 percentage point incase in literacy rates as well. Such heartening development provides hope for further improvement in those human development indicators as well where the state is presently lagging behind the other state.

All the districts except Sirohi have registered a positive growth over the previous survey years. However, the quantum of change is highly variable. It ranges from -20.3 percent in Sirohi and 0.3 points in Dungarpur to 117 % in Jalor. Districts with a very impressive increase in GERs are – Jalor (117%), Bharatpur (77.1%), Sawai Madhopur (61.5%), Dholpur, Bhilwara, Jhalawar and Nagaur (above 40 % each).

Sirohi has recorded a decline of 20.3 percent over the period. It may be a result of over-reporting of enrolled children in the year 1993. Districts with slightly positive growth are – Dungarpur (0.3), Jaipur (2.2 percent), Barmer (3.1 percent), Banswara (6.7 percent) and Ajmer, (9.5%) (below 10 percent each).

Girls' Gross Enrolment Ratio-

Gender-wise break-up of the change in enrolment levels, indicates a kind of social change in Rajasthan where people and the government have made conscious efforts to provide schooling opportunities to girl children. Improvement in terms of GER among girls, have been as high as 38.2 points registering a growth of 66.8 percent. In 1993 GER among girls at primary level was 57.17. It improved tremendously to 95.4 in 2002. There is no district that may have recorded a decline. All the districts have registered an increase over the period.

Again the range of such increase is quite pronounced from as low as 19.4 percent in Dungarpur to as high as 176.6 percent in Jalor.

Districts with positive change are – Jalor, Sawai Madhopur, Bharatpur, Dholpur, Tonk, Nagaur and Jhalawar (above 100 percent each). On the other hand districts with small change are – Dungarpur, Barmer, Ajmer, Jaipur and Jhunjhunun (below 40 % each).

Boys' Gross Enrolment Ratio-

However, the change in GER among boys at primary level is very slight in contrast to that among girls during the same period. The change for Rajasthan as a whole is only 3.7 points registering a growth of 3.6 percent. It is due to the fact that the state had already reached a level of saturation in

case of GERs among boys at the primary level. The change has been from 101.6 to 105.3 GER. In fact, in as many as 11 districts the change over the period under consideration has been negative.

Growth in GER at the Upper Primary Level

At the upper primary level, the change in GER in Rajasthan has been in the order of + 14.7 points which is lower than the corresponding change of 20.1 points at primary level. However, the growth has been in the order of 31.8 percent at the upper primary level vis-à-vis that of 24.9 percent at the primary level over the period. In spite of a low base of upper primary level to start with, the improvement has not been much satisfactory. The slow progress at this level is an area of future concern.

All the districts except Bundi and Sirohi have registered a positive growth. Kota with 127.9 percent growth is at the top.

Districts with high growth are—Kota, Banswara, Jalor, Jhalawar (above 60 percent each). Districts with low growth are—Jaisalmer, Jaipur, Jodhpur, Barmer, Ajmer, Bharatpur (below 20 percent each).

Girls' Gross Enrolment Ratio-

Among girls, increase in GER at upper primary level is higher than the total average for the state. Rajasthan has registered 19.9 points increase from 25.2 in 1993 to 45.2 in 2002 thereby registering a growth as much high as 79 percent over the period. Yet the current level of enrolment demands a lot to be done for further improvement. The highest positive change has been recorded in Kota (277.7 growth) from a low of 15.8 GER in 1993 to as high as 59.6 GER in 2002.

Districts with positive gains are -- Kota, Nagaur, Sikar, Dholpur, Sirohi, Sawai Madhopur, and Banswara (above 120 percent). Districts with low growth are —Ajmer, Jodhpur, Bikaner, Jaipur and Jaisalmer (below 50 percent each). Bundi district has registered a decline.

Boys' Gross Enrolment Ratio-

Change in GER among boys at the upper primary level has been in the order of + 10.2 points registering a growth of 15.7 percent which is lower than the

gain in case of GER among girls at this level. However, this gain is much higher when compared with the increase in GER among boys at the primary level (3.6 percent). It has improved from 64.7 (GER) in 1993 to 74.9 (GER) in 2002. Kota has registered the maximum growth of 83.8 percent. Districts with high growth are - Kota, Jalor, Banswara, Jhalawar and Sawai Madhopur (above 30 % each).

Districts with low growth are- Jaipur, Bharatpur, Barmer, Jhunjhunun, Jodhpur and Churu (below 10 percent).

Districts with decline are- Bundi, Sirohi and Jaisalmer.

GROWTH IN GER AT THE ELEMENTARY LEVEL

The state has witnessed 2.6 percent average annual exponential growth rate in GER at the elementary level during 1993—2002. The highest growth is recorded in Jalor followed by Sawai Madhopur and Bharatpur. However, District of Sirohi has registered a decline of 2.2 percent per annum. Other Districts with low growth rate are—Bundi, Jaipur, Barmer, and Dungarpur (below 1 percent each).

Table 4.15: Classification of districts according to Growth Rate in Gross Enrolment Ratio at the Elementary Level, Rajasthan, 1993--2002

Growth Rate in GER (Elementary)	Districts
1. 4.0 and above	Jalor, Sawai Madhopur, Bharatpur, Jhalawar, Dholpur,
2. 2.5—3.9	Bhilwara, Nagaur Tonk, Bikaner, Alwar, Kota, Ganganagar, Churu, Pali,
3. 1.0—2.4	Sikar Chittaurgarh, Jaisalmer, Jhunjhunun, Jodhpur, Banswara,
4. below 1.0	Udaipur, Ajmer Dungarpur, Barmer, Jaipur, Bundi, Sirohi

Growth Rate in GER among girls at the elementary level in this period is 5.8 percent per annum. There are 4 districts that have recorded an exponential growth rate of over 10 percent per annum each. These are—

Sawai Madhopur, Jalor, Bharatpur, Dholpur. Districts at the lower end are—Dungarpur, Ajmer, Barmer and Jaipur (3.5 percent or below).

Among boys, growth rate in GER at the elementary level during 1993—2002 is only 0.7 percent per annum. Jalor, Sawai Madhopur and Bharatpur are at the top, Sirohi, Bundi, Jaipur, Barmer etc. are at the bottom.

4.3 GROSS ENROLMENT RATIOS IN RURAL / URBAN AREAS

Rural GER at the Primary Level

In the year 2002, GER at primary level in rural areas of Rajasthan is recorded as high as 102.1. The highest GER has been registered in Bharatpur (121.3) followed by Dholpur, lowest being 83.7 in Barmer. The range in rural GER is 37.6 points. There are 14 districts with higher rural GER than the state average. Districts can be classified in the following categories according to their rural GERs –

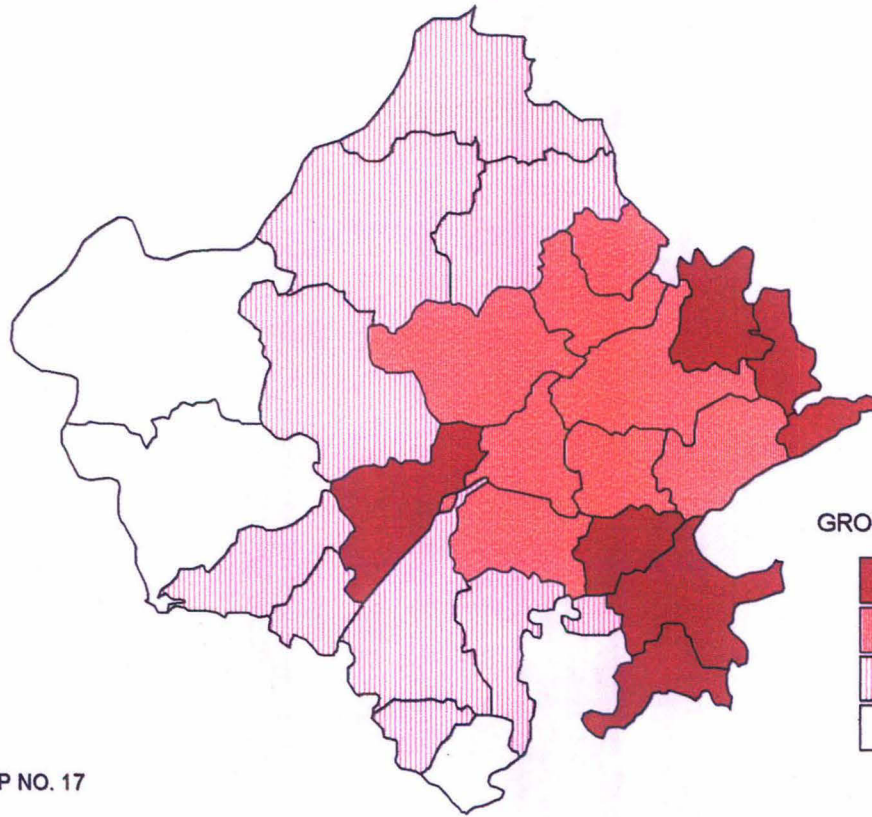
Table 4.16: Classification of districts according to Gross Enrolment Ratio at the Primary Level in Rural Areas, Rajasthan, Year 2002

Rural GER (Primary)	Districts
110 and above	Bharatpur, Dholpur, Alwar, Pali, Jhalawar, Kota and Bundi (Northeastern and Southeastern).
100-109	Jhunjhunun, Nagaur, Sawai Modhopur, Ajmer, Tonk, Jaipur, Sikar, Bhilwara, (Central)
90-99	Bikaner, Chittaurgarh, Ganganagar, Churu, Sirohi, Udaipur, Jalor, Dugarpur, Jodhpur.
Below 90	Jaisalmer, Banswara, Barmer.

Source: Computed using the enrolment data from the seventh All India Educational Survey (map 17)

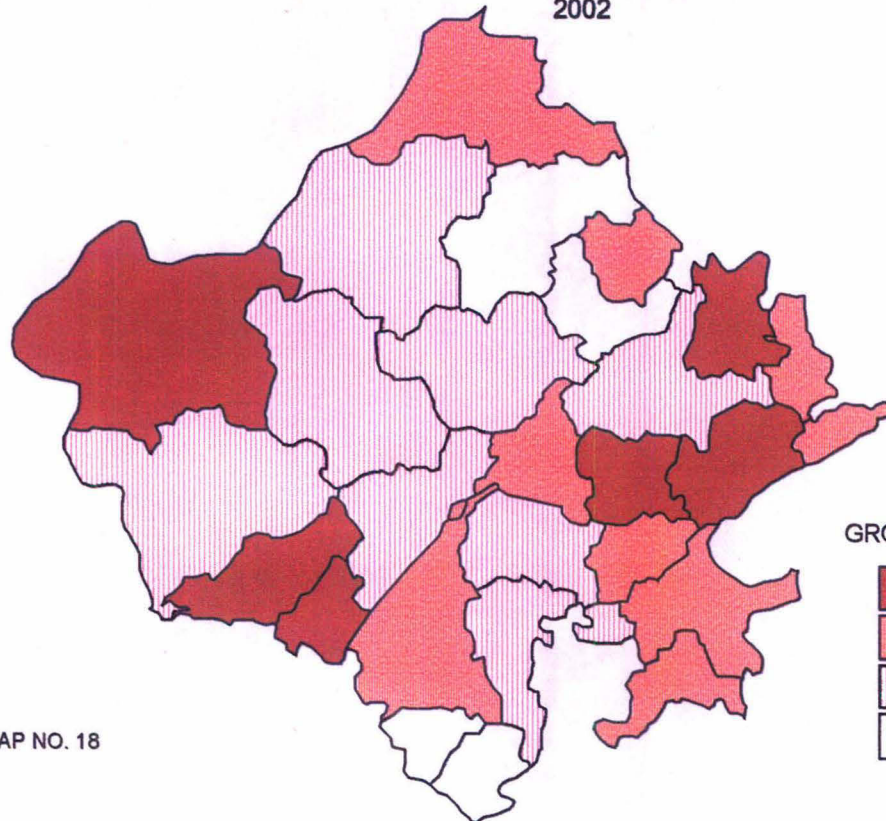
Rural Gross Enrolment Ratio among girls is 96.9. , while among boys, it is 106.9.

RAJASTHAN
GROSS ENROLMENT RATIOS AT PRIMARY LEVEL FOR RURAL AREAS
2002



MAP NO. 17

GROSS ENROLMENT RATIOS AT PRIMARY LEVEL FOR URBAN AREAS
2002



MAP NO. 18

MAP NOT TO SCALE

Urban GER at the Primary Level

Urban GER at the primary level for the state is 95.3. The range between the highest GER in Alwar (128.7) and lowest in Churu (85.9) is 42.8.

Table 4.17: Classification of districts according to Gross Enrolment Ratio at the Primary Level in Urban Areas, Rajasthan, Year 2002

Urban GER (Primary)	Districts
110 and above	Alwar, Jaisalmer, Jalor, Sawai Modhopur, Tonk, Sirohi
100-109	Jhalawar, Dholpur, Jhunjhunun, Ajmer, Bundi, Bharatpur, Kota, Ganganagar and Udaipur
90-99	Jaipur, Chittaurgarh, Jodhpur, Barmer, Pali, Bhilwara, Bikaner, Nagaur.
Below 90	Dungarpur, Banswara, Sikar, Churu.

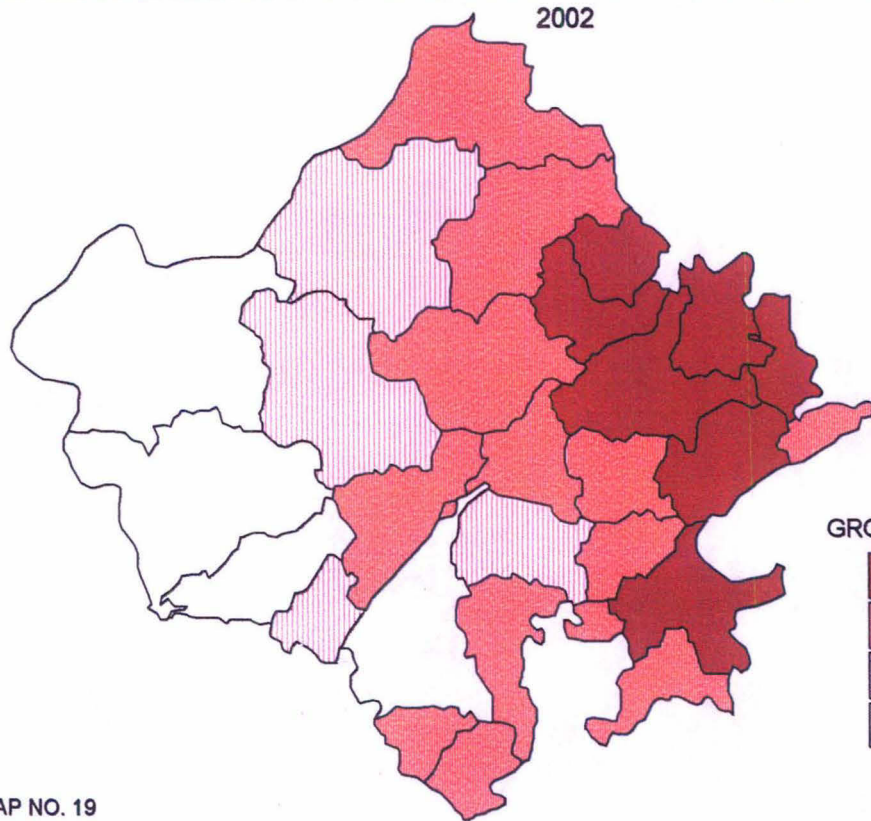
Source: Computed using the enrolment data from the seventh All India Educational Survey (map 18)

Urban GER among girls at primary level is 90.3 while it is 99.8 among boys.

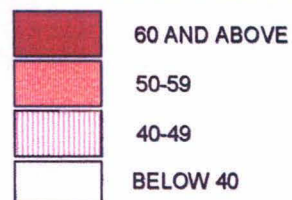
Table 4.18 : Comparison of GERs at the Primary Level between Rural and Urban Areas, 2002

	Rural	Urban	Rural-Urban Difference
Total GER	102.1	95.3	+ 6.8
Girls GER	36.9	90.3	+ 6.6
Boys GER	106.9	99.8	+ 7.1
Range in total GER	37.6	42.8	- 5.2

RAJASTHAN
GROSS ENROLMENT RATIOS AT UPPER PRIMARY LEVEL FOR RURAL AREAS
2002

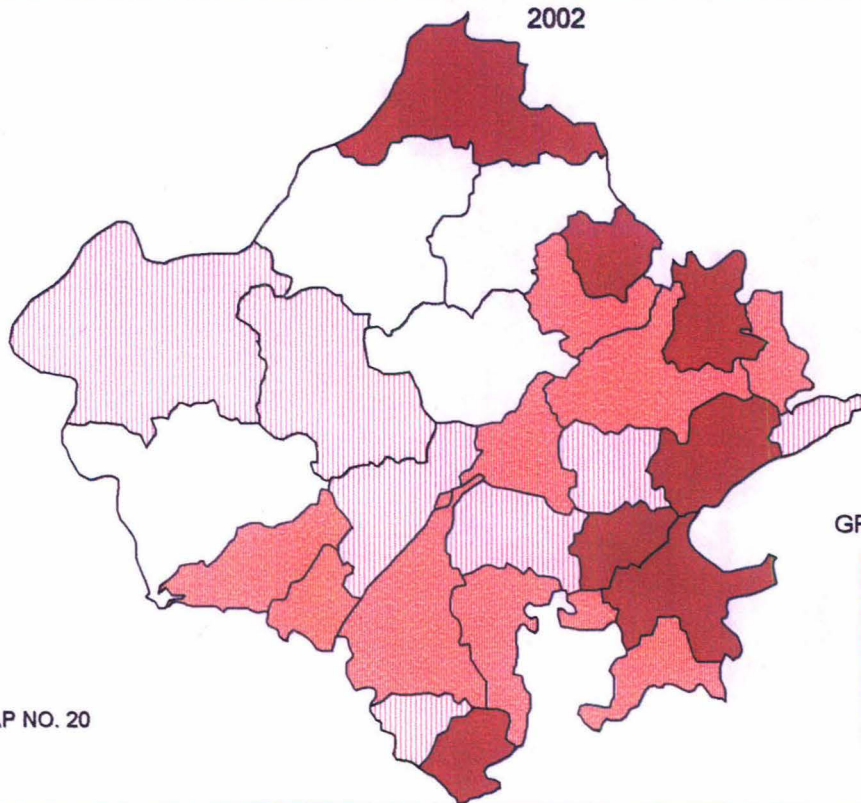


GROSS ENROLMENTS RATIOS

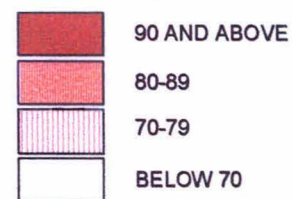


MAP NO. 19

GROSS ENROLMENT RATIOS AT UPPER PRIMARY LEVEL FOR URBAN AREAS
2002



GROSS ENROLMENT RATIOS



MAP NO. 20

MAP NOT TO SCALE

The above table brings out the point that primary level GERs are higher for rural areas than for urban areas. However, inter-district variation in GERs is much higher in urban areas.

Jaisalmer presents a striking example in terms of its placement in rural and urban GER rankings. While in rural GERs it figures in lowest category with 88.2 GER, in urban GERs it stands in the highest category with 118.5 GER. It is a matter of interest to know about the factors that are responsible for such a difference.

Rural GER at the Upper Primary Level

Rural GER at Upper Primary level in Rajasthan is only 56.0. Jhunjhunun has the highest GER (85.8) and Jaisalmer, the lowest (28.3). The range between the two is quite huge (i.e. 57.5 points).

Table 4.19: Classification of districts according to Gross Enrolment Ratio at the Upper Primary Level in Rural Areas, Rajasthan, Year 2002

Rural GER (Upper Primary)	Districts
60 and above	Jhunjhunun, Sikar, Jaipur, Alwar, Sawai Modhopur, Bharatpur, Kota
50– 59	Ganganagar, Bundi, Nagaur, Tonk, Pali, Dholpur, Ajmer, Dungarpur, Churu, Banswara, Chittaurgarh.
40– 49	Jhalawar, Bhilwara, Udaipur, Sirohi, Bikaner.
below 49	Jodhpur, Jalor, Barmer, Jaisalmer.

Rural GER among girls at upper primary level is abysmally low which is only 38.3 while among boys the corresponding GER is 71.4.

Urban GER at the Upper Primary Level

For Rajasthan is 78.0. Highest urban GER at this level is recorded in Alwar (116.6) and lowest in Churu (57.7) the range between the above two is 58.9 points. According to urban GER's at upper primary level. Districts can be grouped into following classes –

Table 4.20: Classification of districts according to Gross Enrolment Ratio at the Upper Primary Level in Urban Areas, Rajasthan, Year 2002

Urban GER (Upper Primary)	Districts
90 and above	Alwar, Bundi, Sawai Madhopur, Ganganagar, Kota, Banswara
80– 89	Jhunjhunun, Ajmer, Udaipur, Sikar, Chittaurgarh, Jalor, Sirohi, Jaipur, Bharatpur.
70– 79	Jhalawar, Bhilwara, Tonk, Jaisalmer Jodhpur, Dholpur, Pali
Below 70	Dungarpur, Bikaner, Nagaur, Barmer, Churu (57.7)

Urban Gross Enrolment Ratio among girls at the upper primary level is 68.2. Among boys, it is 86.8.

Table 4.21: Comparison of GER's at Upper Primary Level between Rural and Urban Areas, 2002

	Rural	Urban	Rural-Urban Difference
Total GER	56.0	78.0	-22.0
Girls GER	38.3	68.2	-29.9
Boys GER	71.4	86.8	-15.4
Range in total GER	57.5	58.9	-1.4

It is clear from the above table that urban areas have higher GERs at upper primary level for total, girls and boys. It is in contrast to the higher GER for rural areas at primary level. The Rural – Urban difference is more marked in case of GER among girls. Inter-district range in total GER is higher in urban areas than in rural areas.

Table 4.22 : Comparison between Rural and Urban Areas : Growth in GER between 1993 and 2002

	Rural		Urban	
	Primary	Upper primary	Primary	Upper primary
Total	34.5	45.2	-1.8	6.6
Girls	97.9	155	4.2	13.5
Boys	6.6	21.1	-6.3	2.2

4.4 SC/ST ENROLMENT AT VARIOUS STAGES OF EDUCATION

The SCs and STs as such were once totally debarred from education, their enrolment in schools however meager it may be, could itself be considered to be a major achievement. However, it is necessary to gauge their progress towards equality by more sensitive measure such as with reference to their enrolment, it is necessary to ask a more specific question as to whether their percentagewise representation at different levels of school education (here only primary and middle level of school education has been considered), matches their percentage in the population.

At the primary level, share of SCs in total enrolment in 1993 was 16.55 per cent. This is broadly in consonance with the share of SCs in total population i.e., 17.29 per cent (1991 census). While in the case of STs the share is 10.95 per cent at primary level of enrolment and their share in total population was 12.44 per cent. Thus STs have less proportionate representation at primary level in comparison to SCs. But as we move higher in the pyramid, the share of SCs and STs indicates a continuous decline. At the middle level, SCs share falls to 13.46 per cent while that of STs falls to 7.84 per cent in 1993. Thus as we rise higher in the educational pyramid, the share of non- SC/ST enrolment shows an increasing trend.

4.4.1 Enrolment at Primary Level among SCs and STs

On analyzing the percent share of SCs enrolment to their percent share in total population at district level, disturbing outcome is that poor enrolment in districts with a high concentration of SCs. The district of

Ganganagar was having the highest percent of SC population to district total but the share in total enrolment was much below i.e. 25.03 per cent share only in 1993. Further, it becomes all the more clear that the state aggregate picture where the percent share of SC and ST enrolment which was in consonance to their per cent share of population does not hold true when we look at the breakdown of the data for the districts. There are as many as 16 districts in the state in which the percentage for the SC enrolled at the primary level in the districts is less than the percentage of the SC population within the district. These districts are – Baran, Barmer, Bhilwara, Bikaner, Bundi, Churu, Dholpur, Ganganagar, Jalor, Jhalwar, Jhunjhunun, Jodhpur, Kota, Nagaur, Pali and Sirohi.

In view of the fact that we had, earlier observed, the level of literacy within the SC population to be particularly poor in districts with a high concentration of SC in the population, it is important to note that all these districts in which the percentage of SC enrolment at primary level is less than the percentage of population of the SC in the district, happens to be districts with a high concentration of SC population. In these districts the SC population constitutes between 33.21 per cent in Ganganagar to 15.27 per cent in Jodhpur and also that most of these districts have percent share of SC population above that of the state average 17.29 per cent.

In the case of STs the percent share in enrolment (10.95 per cent) at the state aggregate level is also below the percent share in ST population i.e., 12.44 in 993. This shortage is evidently also seen in 18 districts out of the 30 districts in 1993. The shortage ranges from 0.14 per cent in Ajmer to 11.8 per cent in Udaipur. Rest of the 12 districts have marginally higher percent share in enrolment than their percent share in population. These are Bharatpur, Bikaner, Churu, Dausa, Dholpur, Ganganagar, Jaipur, Jhunjhunun, Kota, Nagaur, Sawai Madhopur and Sikar. So one major finding which emerges is that within the backward classes, STs are more backward in comparison to SCs on the educational front, more so at the primary level of education.

4.4.2 Enrolment at Upper Primary Level among SCs and STs

On studying the enrolment data for the SCs at middle level at the district as a unit of study it becomes very clear that as we move higher in the pyramid, the share of SCs and also that of STs indicates a continuous decline.

The district wise break down of the enrolment of the SC shows that their percent share, declines in 27 districts of Rajasthan in comparison to the 15 districts at primary level. The state average, which was 16.55 per cent at the primary level declines to 13.46 per cent at upper primary level in the case of SCs. The shortage ranges from 0.16 per cent in Rajasmand to 17.4 per cent in Ganganagar. The three districts that stand out as an exception to the general declining trend are Banswara (5.76 per cent), Dungapur (5.44 per cent) and Udaipur (8.95 per cent). One interesting finding is that all these three districts have dominantly more than 50 percent of their population as tribal population.

In the case of STs at the upper primary level also their share is less proportionate to their population i.e., 7.84 percent share in enrolment in comparison to 12.44 per cent share in population. At the upper primary level the share was higher in eight districts in comparison to their percentage share is population. But this higher share was seen in basically those districts where ST population was below one per cent, with the exception of Sawai Modhopur where percent share in population was 21.98 while percent share in enrolment was 23.17 percent. Other districts with higher share in enrolment were Bhilwara, Bikaner, Churu, Ganganagar, Jhunjhunun, Nagaur and Sikar. In the rest of the 27 districts, the percentage share in enrolment was less than their percent share in population. This shortage ranges from 0.23 percent in Tonk to 28.5 percent in Banswara.

4.4.3 Change in Percent Enrolment among SCs and STs between 1993 and 2002²

The change in percent share in enrolment of SC and ST at the primary level has been quite significant. All the districts of Rajasthan have percent share in enrolment higher than their percent share in population, in the case of SC and also in the case of STs with the exception of two districts (Dholpur and Ganganagar). All this points towards a healthy development on the educational front for these deprived sections of the society.

Further, at the upper primary level the scenario is all together different. In the case of SCs there are as many as 19 districts out of the 32 districts where the percent share in enrolment is less than their percent share in population. While the case of STs the number of districts with proportionately less enrolment is 13 in number. The common districts with low percentage share is enrolment in the case of both SCs and STs are Baran, Barmer, Dhaulpur, Jalor, Pali and Sirohi. One more interesting finding is that in some of the districts i.e., four in case of SCs and six in case of STs have shown proportionately increase in the percent share of enrolment at the upper primary level in comparison to primary level which is a positive step over a limited area.

Thus the poor enrolment is one form in which educational backwardness may express itself. But there are other possible expressions of backwardness like poor performance, frequent failures, a heavy rate of drop out of the school, the tendency to cluster into inferior educational institutions and the tendency to take up courses that are less demanding academically. However, in the last decade of the twentieth century the SC and ST enrolment figures for Rajasthan have significantly improved. Although the factors noted above serve as caution against an over-enthusiastic interpretation of the data, the enrolment figures certainly speak of the

² Note: 1993 – is base year of Sixth All India Educational Survey while in the case 2002-03 the source of data is District Elementary Education Report Cards (since the seventh All India Educational Survey) has not published the data for SCs and STs.

success of the multi-pronged programme, undertaken by the Government of Rajasthan, for the educational backwardness of the backward classes. On the whole data suggest that those concerned with shaping and administering policy for the education of the backward classes in Rajasthan should draw encouragement from the fact that enrolment has increased. However, it is now necessary, that they recognize the possibility of backwardness lingering in subtle forms, and review and redesign policy suitably.

4.5 MAJOR FINDINGS

1. Levels of school enrolment in Rajasthan have a distinct regional pattern. At the Primary level, eastern and northeastern districts lead the others in terms of GER. Southeastern districts follow them closely. Central and northern districts form the next belt. Western districts alongwith districts of extreme southern location fall behind in terms of levels of enrolment in the state.
2. On comparing the spatial pattern of enrolment in 1993 and 2002, a similar kind of pattern is visible except for the fact that the eastern districts have improved their enrolment levels very fast and have acquired a leading place in the state, at the primary level.
3. Enrolment levels broadly confirm the achievement in literacy levels.
4. Inter-district variations are sharper for girls' enrolment than the total enrolment level.
5. Spatial pattern of boys' GER is not as contiguous as is the case with respect to girls' GER.
6. About one-fourth of the girls in the 6—11 year age-group and more than half in the 11—14 year age-group are not enrolled in the western and extreme southern districts.
7. About two-fifth of the total children in the 11—14 years of age in Rajasthan are not enrolled in the upper primary schools.
8. Regional disparities are sharper in case of upper primary level GER than that of primary level GER.
9. Northeastern districts are not at the top in case of GERs at the upper-primary level as they were in case of GERs at the primary level.
10. Southern and western districts are the areas of continuous educational backwardness as they continue to lag behind in case of GERs at the upper-primary level as well.

11. Inter-district variations are very much pronounced in case of GER among girls at the upper-primary level.
12. At the elementary level, districts of eastern (Matsya region) and southeastern (Hadoti plateau) have recorded high enrolment ratios. Central-eastern and northern districts follow them. Districts in the central periphery of Rajasthan come next, while western desert districts and the southern districts lag behind the others.
13. Over the last decade, growth in terms of primary level GER has been quite impressive (above 25 percent)
14. GER among girls has grown by 66.8 % because of substantial progress over a low base. All the districts have recorded growth.
15. Change in GER among boys is very slight in contrast to that among girls during the same period.
16. Upper primary level GERs have recorded a moderate growth of about 32 % despite of a low base. This is an area of concern that should be worked upon seriously.
17. At the elementary level, average annual exponential growth rate in GER is 2.6 percent during the last decade. Jalor, Sawai Madhopur and Bharatpur have recorded the maximum growth rate. GER among girls at the elementary level has gone up by 5.8 % per annum over the last decade, but among boys, GER has registered a growth of 0.7 % only.
18. Primary level GERs are higher for rural areas than for urban areas. Inter-district variations for GERs are much higher in urban areas.
19. Urban GERs at the upper primary level are higher than the rural GERs at this level. Inter-district variations are higher in urban areas again.
20. According to Sixth All India Educational Survey, the STs have less proportionate representation at the primary level in comparison to SCs. The share of both declines at the upper primary level.
21. Districts with high concentration of SC population have less proportionate share of SC enrolment vis-à-vis their share in population. The same is true for the STs as well.
22. Between the Sixth and Seventh All India Educational Surveys, there has been improvement in enrolment share of SC and ST population.

CHAPTER – V

GENDER DISPARITY IN LEVELS OF ENROLMENT IN RAJASTHAN

5.1 On educational front till recently, the state of Rajasthan was counted among the most backward states of the country. Not only in terms of overall literacy, but also in terms of gender-gap in literacy as well as in enrolment levels, Rajasthan had an extremely poor record. However, it is heartening to note that during the last decade the state has marched ahead remarkably towards achieving a sustainable level of literacy. A very crucial factor in this regard is a notable advancement of women and girls' education. Although there is a long way to go, the direction seems to be right as gender disparity in gross enrolment ratios is narrowing down in the state. What is needed is to enhance the pace of such development by building a social movement for girls' education. In the following sections incidence of gender disparity¹ in levels of enrolment has been analyzed with attempts to identify causes that contribute to disparities. Section A presents spatial pattern of gender disparity levels in gross enrolment ratios for the year 2002 (i.e., the base year of All India seventh educational survey) this section helps to identify the spatial patterns of disparity in GER depicted with the help of maps. Section B gives the rural-urban break-up of gender-disparity levels in order to capture the pattern in a more sensitive manner. Rural-urban disparity will help us to analyze and understand the spatial scenario of the existing inequality within the group in a more realistic framework. In section C, an attempt has been made to trace the changes in gender disparity levels over the last decade. Here, a comparative analysis of the gender disparity scenario across Rajasthan has been presented between the base year of sixth All India

¹ Gender disparity in Gross Enrolment Ratios of boys and girls has been estimated using modified Sopher's disparity index, represented by the following formula –
$$Di = \text{Log} (X_2 / X_1) + \text{Log} [(Q - X_1) / (Q - X_2)]$$

Where X_1 is GER among girls, X_2 is GER among boys and $Q \geq 200$ as suggested by Kundu and Rao (1986) in place of $Q \geq 100$ as given by Sopher (1974).

Educational Survey (i.e., year 1993) and that of Seventh All India Educational Survey (i.e., year 2002).

5.2 Gender Disparity in Gross Enrolment Ratios at the Primary Level

In the year 2002, disparity between boys' and girls' enrolment levels is estimated to be 0.086. It is an improvement by 0.326 points over the last decade when gender disparity was 0.412 in the year 1993 when GER among boys is 105.3 percent and that among girls is 95.4 percent. Disparity level for this 9.9 percentage point gender gap in gross enrolment ratios at this level thus come out to be 0.086.

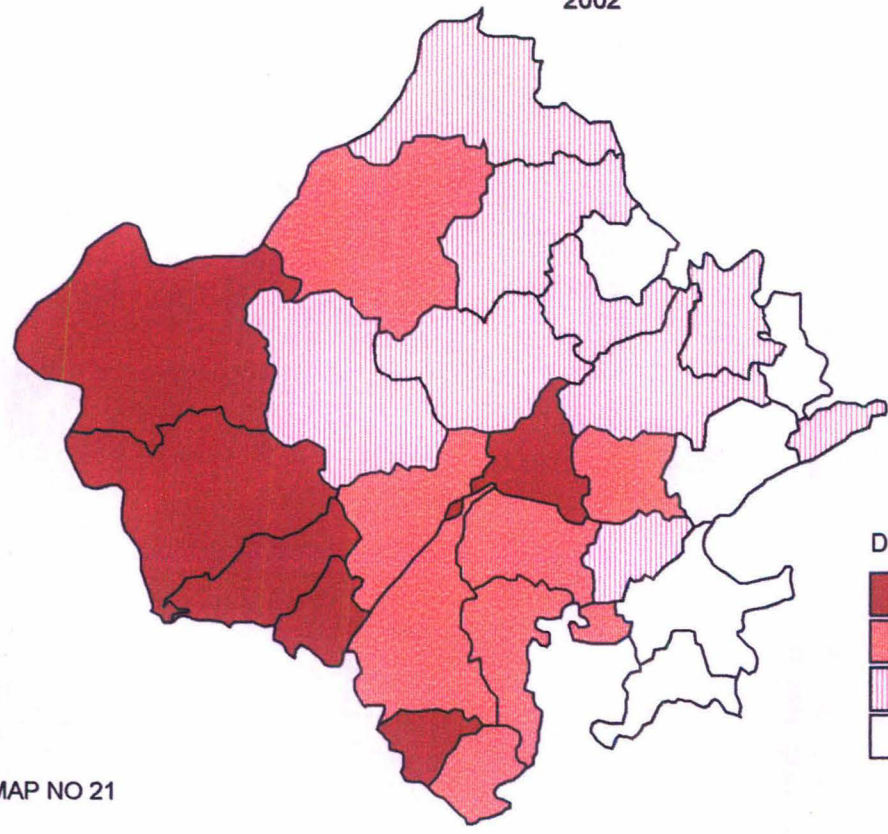
District-wise the highest gender disparity has been recorded in Sirohi, while Kota presents a worth-emulating example to other districts of the state by recording the lowest gender disparity of only 0.002 points. There are as many as 15 districts where gender disparity is higher than the state-average (0.086).

Table 5.1—Classification of Districts on the basis of Gender Disparity Index at the Primary Level, Rajasthan, 2002

Gender Disparity Index (Primary)	Districts
Above – 0.150	Sirohi, Jalor, Jaisalmer, Dungarpur, Barmer, Ajmer (6)
0.100 – 1.150	Chittaurgarh, Banswara, Bhilwara, Bikaner, Udaipur, Pali (6).
0.050 – 0.100	Tonk, Jodhpur, Nagaur, Dholpur, Ganganagar, Churu, Alwar, Jaipur (8).
0.0 – 0.50	Sikar, Bundi, Sawai Madhopur, Jhunjhunun, Bharatpur, Jhalawar, Kota (7)

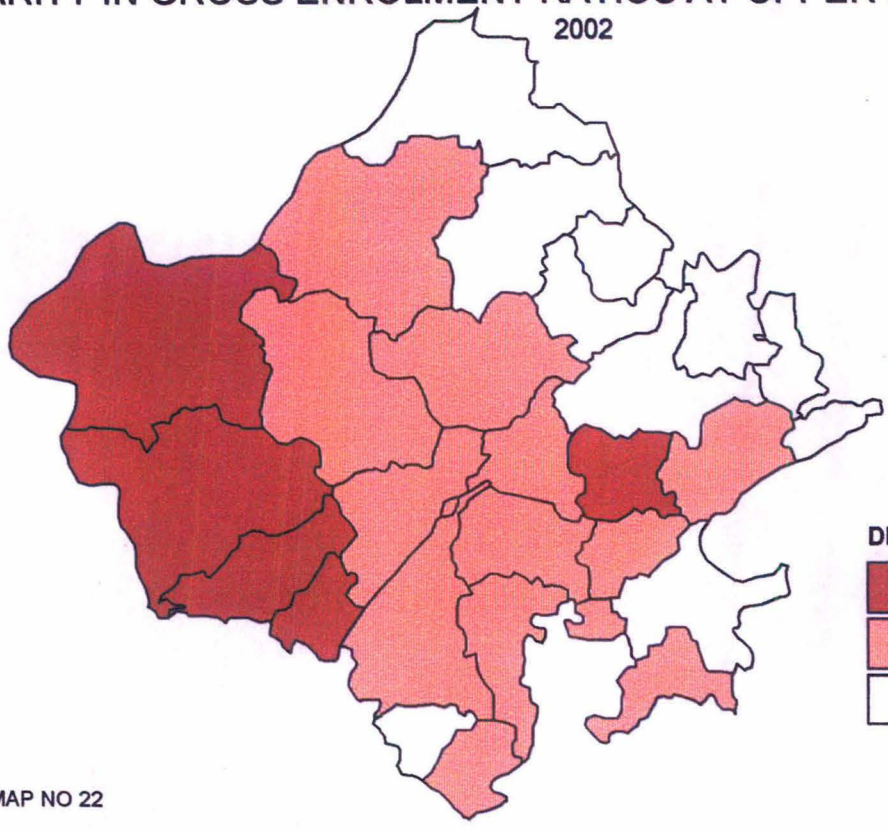
From the above table, it is clear that all the western and southern districts have gender disparity of more than 0.1 point. These are also the regions of very poor literacy levels. It is well known that education is catalyst of social change and is widely perceived by members of socially or

RAJASTHAN
DISPARITY IN GROSS ENROLMENT RATIOS AT PRIMARY LEVEL
2002



MAP NO 21

DISPARITY IN GROSS ENROLMENT RATIOS AT UPPER PRIMARY LEVEL
2002



MAP NO 22

MAP NOT TO SCALE

economically disadvantaged groups as the most promising means of upward mobility for their children. Keeping this viewpoint in mind, it becomes all the more clear that a relatively high magnitude of backwardness (disparity) will further lead to deprivation of the deprived segments of population. The case in study of Rajasthani women is no exception to this, this is more true of the society based on patriarchal norms and practices, caste and sexual division of labor. The southern districts comprising the Mewar region (which has predominantly tribal population), tends to have the highest disparity levels. Earlier we had noticed that these districts had the lowest enrolment, lowest literacy and now the highest gender disparity too. The same is true for the western districts of the Marusthali region. These backward regions need to be taken up on a priority basis for further educational development. (map 21 & 22)

5.3 Gender Disparity in Gross Enrolment Ratios at the Upper Primary Level

At the upper primary level, disparity levels are sharply higher than the disparity-index at the primary level. For Rajasthan as a whole, gender disparity is as high as 0.312 points at the upper primary level, which was recorded only 0.086 points at the primary level. There is a difference of 0.226 points between the primary and upper primary level. However, an encouraging fact is that the gender disparity index at the upper primary level has come down from 2.709 points in 1993 to 0.312 points in 2002, thus reducing by 2.397 points.

Highest gender disparity at the upper primary level is found in Jalor district with 0.631 points, while the lowest is in Ganganagar district with 0.168 points only, the range between the two is of 0.463 points.

**Table 5.2—Classification of Districts on the basis of Gender
Disparity Index at the Upper Primary Level, Rajasthan, 2002**

Gender Disparity Index (Upper Primary)	Districts
Above 0.45	Jalor, Barmer, Sirohi, Tonk, Jaisalmer
0.30 – 0.44	Pali, Sawaimadhopur, Nagaur, Jhalawar, Banswara, Jodhpur, Bhilawara, Bundi, Bikaner, Chittaurgarh.
Below 0.30	Ajmer, Udaipur, Dholpur, Alwar, Jaipur, Churu, Bharatpur, Dungarpur, Kota, Sikar, Jhunjhunun, Ganganagar.

Interestingly Sawai Madhopur that has recorded low gender disparity at the primary level is in the high disparity group at upper primary level. On the other hand Dungarpur that is placed in high disparity group of primary level, is relatively at the lower side at the upper primary level. (map 22)

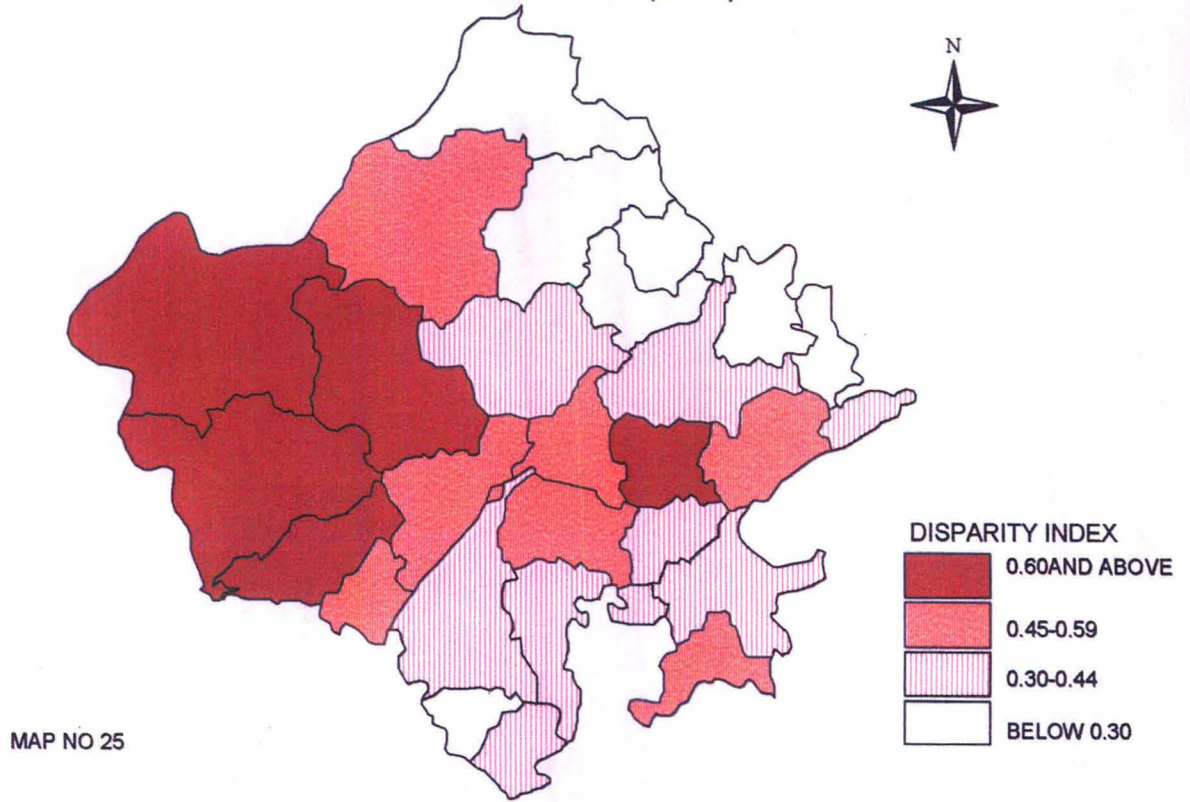
All the districts have recorded high gender disparity at the upper primary level vis-à-vis those at the primary level. Girls' education at the upper primary level therefore, should be the area of highest concern.

Thus, it become clear that disparity tends to maximize as one moves up the ladder on the educational enrolment (i.e., from primary to upper primary). Initially to start with the gender disparity can be assumed to be good because it is in the longer run that due to concerted efforts by the policy makes, this gender disparity with respect to educational enrolment has to converge to make a just and equitable society.

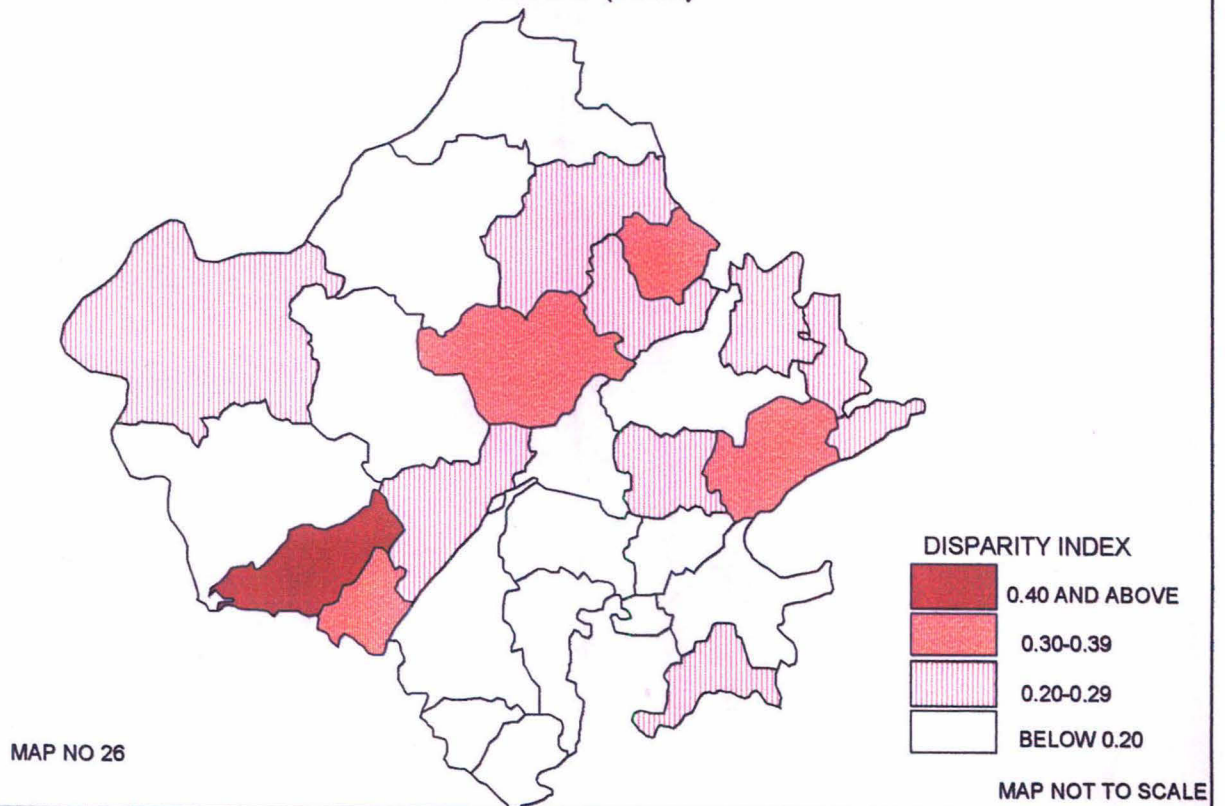
5.4 Gender Disparity in Rural / Urban Areas

At the primary level, disparity index in rural areas is 0.087 while it is marginally lower in urban areas with 0.082. Highest disparity in rural areas has been recorded in Sirohi (0.213) followed by Ajmer and Jalor, however in urban areas, the highest is in Jaisalmer followed by Sawai Madhopur and Alwar. At the lower side in rural areas, Jhunjhunun (0.006), Sawai

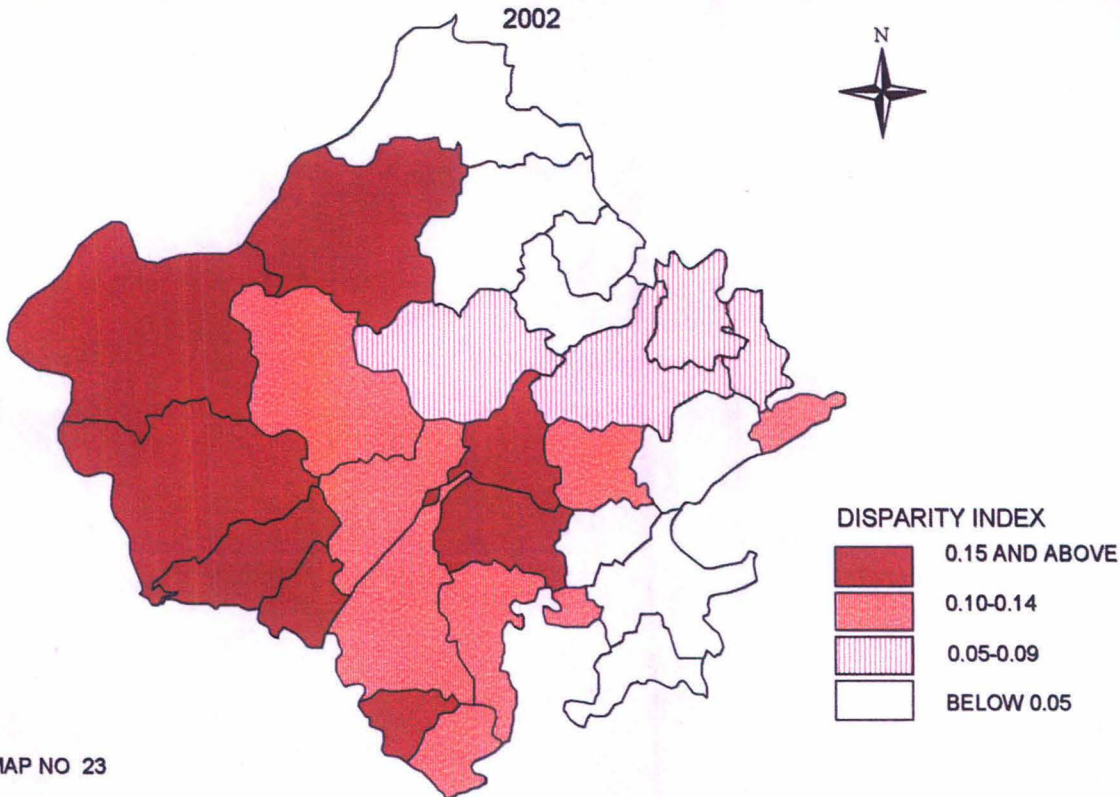
RAJASTHAN
DISPARITY IN GROSS ENROLMENT RATIOS AT UPPER PRIMARY LEVEL
RURAL AREAS (2002)



DISPARITY IN GROSS ENROLMENT RATIOS AT UPPER PRIMARY LEVEL
URBAN AREAS (2002)

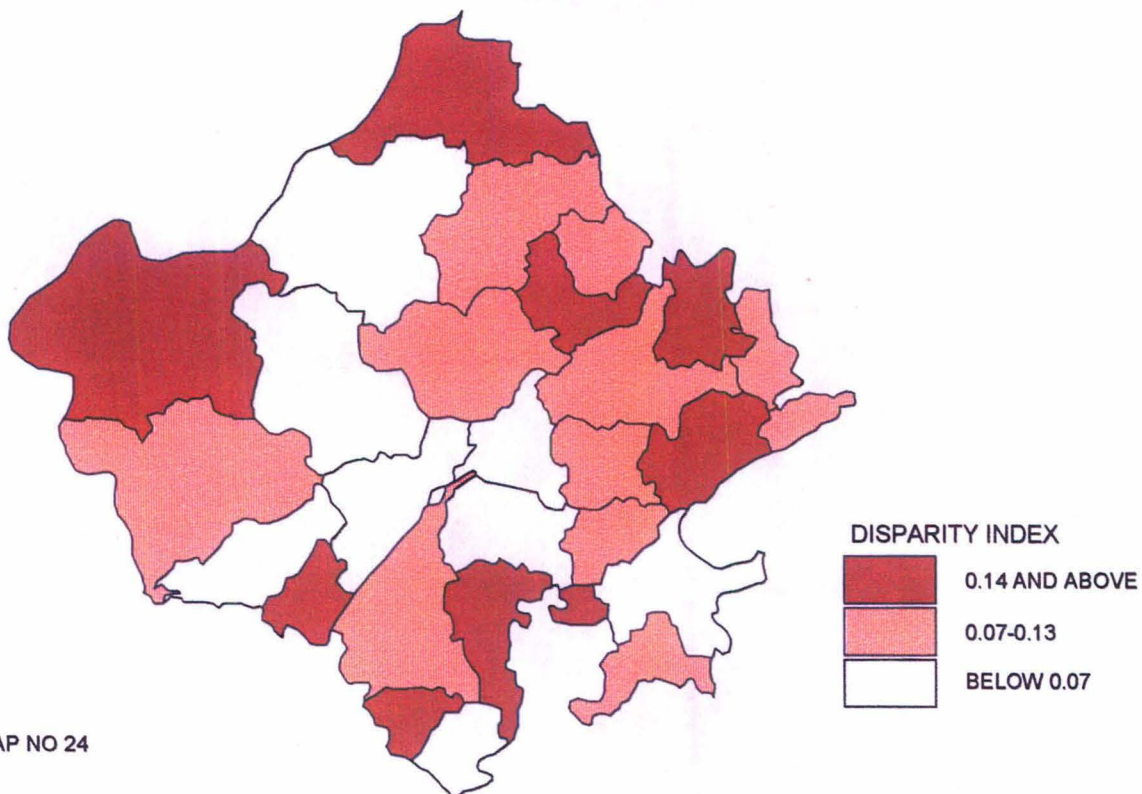


RAJASTHAN
DISPARITY IN GROSS ENROLMENT RATIOS AT PRIMARY LEVEL IN RURAL AREAS
2002



MAP NO 23

DISPARITY IN GROSS ENROLMENT RATIOS AT PRIMARY LEVEL IN URBAN AREAS
2002



MAP NO 24

MAP NOT TO SCALE

Madhopur and Jhalawar are in the increasing order while in urban areas, Jodhpur has the lowest disparity of only 0.003 points followed by Jalor, Bhilwara and Kota. Sawai Madhopur here again presents a contrast where rural gender disparity is only 0.008 reflecting very low disparity among other districts while urban disparity is 0.237 which is the second highest after Jaisalmer. It suggests that the gender disparity is quite high in urban Sawai Madhopur, vis-à-vis relatively low disparity in rural areas of the district. Thus the perception, that is urban areas where the population is socially more aware, economically more capable of imparting education to their children, a situation of higher disparity could emerge. The good example here in this study of disparity is Sawai Madhopur. (map 23 & 24)

At the upper primary level, sharp differences between rural and urban areas emerge. While in urban areas, gender disparity is 0.171; it is more than double in rural areas being 0.371. Jaisalmer (0.676) has the highest disparity in rural areas followed by Jalor and Barmer, while Jhunjhunun has recorded the lowest disparity among districts (0.134). It is followed by Sikar and Ganganagar. In urban areas, the highest and lowest gender disparity is recorded in Jalor and Bundi respectively. (map 25 & 26)

5.5 Changes in the gender disparity levels between 1993 and 2002

The following table gives a summary account of the changes in the disparity levels.

Table 5.3 - Comparison between Rural and Urban Areas: Change in Gender disparity levels between 1993 and 2002

Year	Educational Level	Rural	Urban	Total
1993	Primary	0.492	0.172	0.412
	Upper Primary	0.712	0.235	2.709
2002	Primary	0.087	0.082	0.086
	Upper Primary	0.371	0.171	0.312

It is clear from the above table that gender disparity levels have come down during the period both in urban and rural areas. Since rural areas had higher disparity to start with, these areas have shown sharper reduction vis-à-vis urban areas, however most notable development is recorded in case of

rural areas at primary level. There is a lot more to be done for similar achievements at upper primary level. Such an exercise is of great significance in order to identify those specific districts where the cause of girls' enrolment and education is to be taken up more vigorously and on a priority basis. It can be concluded from the above study of disparity in levels of educational enrolment that with less disparity there is relatively higher sustained enrolment up to the primary level. But the scenario alters as we move up the ladder to the next level i.e., at upper primary level which is characterized by high disparity and relatively low enrolment pointing towards the fact that there is relatively high dropouts. All this inconsistency in educational enrolment points towards the fact there may be economic compulsions which results into parents compelling their children to leave the school and earn for the family, since it is here that the opportunity cost of education becomes high. Various studies and surveys (as cited earlier in the literature) suggests that the region with such a feudal history, patriarchal norms and practices, sexual division of labour deeply influences the women's lives such as early marriage, take care of the young ones (specially in poor families, where women have to go out to work) and greater thrust on learning and performing household jobs, making education a secondary priority. All this results into higher girl child drop outs. (these may be the possible reasons but will become clear in the next chapter which deals with correlations and regression exercise to determine the determinants of enrolment. A social reality such as educational enrolment may not be so easily captured for the possible causes, since there are various other independent factors that influence the phenomena. Even some factors happen to be area or region specific, therefore, delineating the exact cause becomes a difficult task.

CHAPTER –VI

DETERMINANTS OF ENROLMENT

6.1 The present chapter is an attempt to examine variations in the levels of educational enrolment across the various districts of Rajasthan. Variations are sharper in case of Gross Enrolment Ratio among girls particularly at the upper primary level. Such a scenario deems it necessary to examine the role of a variety of factors drawn from different aspects of the societal whole that may have a bearing upon children's school-participation. 'What makes a child to attend a school' is a very crucial exercise because it brings out the linkages that enrolment-level has with other socio-economic and demographic realities. Such an attempt is an important tool for policy – planners, educational administrators and people themselves to focus on those factors which facilitate educational development either directly or indirectly, and try to minimize others which hinder this process. Further, any geographical interpretation of a social phenomena such as educational enrolment has to be based on correspondence between mapped pattern and perceived causal relationship.

From a detailed literature – review, it has been possible to identify a good number of indicators that may affect the enrolment levels. In this study, an attempt has been made to verify the validity of the selected variables in explaining the variations in gross enrolment ratio across Rajasthan.

6.2 Dependent Variables The enrolment of girls and boys at the district level in Rajasthan is expected to be determined by a set of social, economic, demographic, gender and 'access to school' variables. The specific variables considered for the analysis are:

6.2.1 (A) Access factors

- (1) Primary school within one km of habitation.
- (2) Ratio of primary school to middle school.

6.2.2. (B) Quality factors

- (1) Pupil-Teacher ratio (P.T.R.)
- (2) Student-Classroom ratio (SCR)
- (3) Proportion of schools with single teacher
- (4) Level of urbanization
- (5) Road length per 100 sq. km.

6.2.3 (C) Gender factors

1. Percentage of female teachers to total teachers
2. Female work participation rate (F.W.P.R.)
3. Adult Female literacy

6.2.4 (D) Demand factors (includes mainly development indicators as proxies of economic prosperity)

- (1) Poverty (Percentage of population below poverty line (BPL))
- (2) Gross Irrigated Area (GIA)
- (3) Non-agricultural workers (NAW)
- (4) Child work participation rate (CWPR)

6.2.5 (E) Social factors

- (1) Proportion of SC population
- (2) Proportion of ST population

6.3 Hypotheses In order to explain the spatial variations and determine the probable explanations, following hypothesis have been proposed. These hypotheses will be tested statistically (correlation and regression).

6.3.1 Hypothesis – 1: Availability, access and quality of schooling are the factors that reflect supply side issues. It is expected that enrolment of children should be positively associated with the availability of schooling.

Whether or not, children, especially girls attend school depends to a large extent on availability of school in close proximity to the habitation and adequate road and transport networks. An indicator showing percentage of habitations having primary school, within a distance of one km represents here, the above – mentioned availability factor.

Level of urbanization may partly reflect the availability of school within a short distance and level of infrastructure present in the school therefore explaining the rural – urban differentials in enrolment of children.

Quality factors considered for the study are pupil – teacher ratio (PTR) and student classroom ration (SCR). It is widely believed that a high PTR and SCR may adversely affect the quality of education due to high pressure of handling too many children by a teacher within a class –room. Here the impact of another indicator such as proportion of schools with single teacher is also examined. A single teacher school may not offer good educational service to children because in case of teacher absenteeism, the school comes to a virtual close. Even in double teacher schools, there may be a mutual understanding between the two teachers for not taking classes on an alternate basis. Such practice affects the quality of schooling and in course of time, parents may not find any interest in getting their children enrolled due to lack of effective schooling.

6.3.2. Hypothesis – 2: Districts having higher SC and ST population, have relatively low enrolment ratios. It has been found that Scheduled Caste (SC) and Scheduled Tribe (ST) children are more likely not to be enrolled. Poor economic circumstances, less importance and less access to education, cultural discontinuity between family and school, language of instruction and quality of schools often lead to low enrolment ratios. Also the ‘social distance’ between teachers and pupils in government schools increases in districts with high SC and ST population.

6.3.3. Hypothesis – 3: Demand for education is influenced by a set of economic indicators.

Children from poor families are less likely to enroll and more likely to drop out in early stages due to high direct and indirect costs of education. It is therefore more likely that districts having higher percentage of population below the poverty line may record lower gross enrolment ratios.

Child - participation in economic or household activities is also one such factor which may affect the child - participation in school. It has been found that child's work participation rate is negatively related to enrolment of children at elementary level of education. The proportion of child workers in the age group of 6-14 years is taken as work participation rate among children (CWPR). It is a general belief that many parents prefer to send their children to labour-market by withdrawing them from school instead of bearing high opportunity cost of enrolling them in schools. Also because of involvement of girls in the household work, their enrolment rates may be quite low.

Another economic variable like percentage of non-agricultural workers to total workers is likely to be positively associated with levels of enrolment of children. It is understood that parents engaged in non-agricultural work find more utility of education for their children for acquiring non-agricultural jobs in future. In contrast, in an agricultural household, a child is more likely to be taken out of school to be engaged in farm activities in the form of family labour.

6.3.4 Hypothesis – 4: Gender factors like female literacy and female work participation rate have important bearing on school participation of children.

Female literacy is likely to have positive impact on children's enrolment. It is believed that due attention is paid to the child's education if the mother is educated. On the other hand female work participation is likely to have a negative impact on children's school enrolment particularly that of girl child because her presence is required at home to take care of domestic work and of younger siblings in the absence of parents.

6.4 Determinants of Gross Enrolment Ratio at the Primary Level

6.4.1 Correlation Analysis

The correlation analysis of the gross enrolment ratio with selected variable brings out the following results.

1. Availability factor and Gross Enrolment Ratio:

The correlation co-efficient between percentage of habitation with primary school within 1 km distance and gross enrolment ratio is found to be highly correlated both at primary and upper primary level and for boys and girls both.

The correlation-co-efficient between--

1. Total GER (Primary) and primary school within 1 km distance = 0.587 **
2. Girls GER (primary) and primary school within 1 km distance (** significant at 1% level)

Although, availability of school within one km distance of habitation influences enrolment opportunity of boys and girls both. It becomes all the more deterrent to girl child enrolment, because in a society characterized by patriarchal norms and sexual division of labour, she may not be allowed to cover long distances just for the cause of education. This may happen to be the cause for non-enrolment of girl child especially in the western part of Rajasthan. Availability, when seen in relation to the ratio of primary school to middle school, things become rather clearer. These districts have high P.S. / M.S. ratio which further constraints the access to schools at higher levels of enrolment. Among other availability factors, gross enrolment ratios are found to be significantly correlated only with student – classroom ratio.

The correlation co-efficient between--

GER (P) and SCR = 0.439 *

(* significant at 5% level)

Thus the availability factor i.e. primary school within one km distance of habitation appears to be a major determinant of school enrolment, more so, in the case of western Rajasthan (i.e. West of Aravallis) in the Marusthali region. Here the districts are characterized by low levels of GER and also the inter district variation tends to be large. This is also depicted by the regression line.

(2) Social factors and Gross Enrolment Ratio:

The correlation co-efficient between –

GER (Primary) and percentage SC population = 0.429 *

GER (Primary) and percentage ST population = -0.404 *

(* significant at 5% level).

It is evident from this result that gross enrolment ratios are lower in those districts where percentage of ST population is higher. However, opposite is the case with respect to SC population where gross enrolment ratio is positively correlated with percentage SC population. It goes against the proposed hypothesis. The possible explanation can be derived from the inherently different nature of regions that the SC and ST population occupy. Scheduled Castes are mostly found in relatively developed, plain agricultural regions where access to schools and availability of infrastructure may not be a problem, while regions inhabited by ST population are generally remote, hilly and underdeveloped. Accessibility is a major issue in such regions. On the demand side also, there is little relevance of the school curriculum in the tribal way of life. Even the PROBE Team (1999) highlights the fact that the 'social distance' is growing, between teachers and pupils in government schools.¹ This is due to the low teaching standard that goes to reflect an endemic lack of accountability in the schooling system.

(3) Demand factor and Gross Enrolment Ratio:

Among economic variables, GER is negatively correlated with child work participation rate, thereby providing evidence in support of our hypothesis.

The correlation co-efficient between --

GER and CWPR	=	0.473 *
Girls' GER (P) and CWPR	=	0.530 **
GER (up) and CWPR	=	0.535 **
Girls' GER (up) and CWPR	=	0.537 **
Boys' GER (up) and CWPR	=	0.33 *

¹ PROBE TEAM (1999), pp. 63, also 62-67.

* Significant at 5% level

** Significant at 1% level

The level of correlation of child work participation rate is highest with girls' enrolment ratio at the upper primary level. It is clear that there is a clear association between child labour and non-schooling of children. This association has also been observed by Myron Weiner (1991).² But, this does not mean that child labour practice is the main deterrent to schooling. Also contrary to this presumption, recent studies of the time utilization of Indian children reveal that a large majority of out-of-school children do relatively little work.³ D.P. Chaudhri, coined the term 'nowhere children'⁴ for children who are neither going to school nor doing enough work to be counted as members of the labour force even on the basis of fairly broad labour – force participation criteria. Keeping the above arguments in view, it becomes clear that child labour is not the main deterrent to schooling but is surely one of the factors at the primary level and more so at the upper primary level where opportunity cost becomes much higher than that at the primary level.

Other economic variables like poverty level and percentage of non-agricultural workers are not found to be significantly correlated with gross enrolment ratios at the district level. This may be due to the effect of other factors becoming more dominant at the district level, since a social reality such as educational enrolment has region specific problems. Although the indicator non-agricultural workers to total workers has been found to be significantly correlated with education at the state level studies in India.

A notable result is that at the primary level gender factor namely female literacy and female work participation rates do not have a significant correlation with total gross enrolment ratios. The possible explanation for

² Myron Weiner (1991), *The child and the state in India: Child labour and Education Policy in Comparative Perspective*, (Princeton University Press).

³ Probe Team (1999) pp 14-16 and 28-31, National Council of Applied Economic Research (1996, 1997).

⁴ Chaudhri, D.P. (1979), *Education, Innovations, and Agricultural Developments*, (Croom Helm). – (1996), *A dynamic profile of child labour in India 1957-1991* (New Delhi –ILO).

this is that the GER for girls at the primary level are nearing 100 in most of the districts while female literacy levels vary widely across the state. At times, these ratios do not reveal the reality as they are grossly exaggerated. Female literacy however, is significantly correlated with GER at the upper primary level.

GER (up) and Female literacy = 0.482 **

Girls GER (up) and Female literacy = 0.691 **

(** Significant at 1% level)

Female work participation rate is negatively correlated with gross enrolment ratio at primary level, but it does not emerge as a determining factor of schooling at district level in Rajasthan. Since Gross enrolment ratios (GER) are highly exaggerated, the result could altogether be different for Net Enrolment Ratios (NER). Sen and Dreze note that in so far as women's labour force participation is concerned, it boosts their influence in the family and schooling decisions are likely to be less male-centered⁵. Thus women's labour-force participation reduces gender inequality in general and it is also likely to promote positive attitudes towards girls' schooling.

6.4.2 Regression Analysis

In order to explain the inter district variations in enrolment and the search for viable explanations, the stepwise regression analysis has been done. Variables for the exercise are as follows:

1. Gross enrolment ratio at primary level as the dependent variable (Y)
2. Percentage of habitations with primary schools within 1 km (X_1)
3. Level of Urbanization (X_2)
4. Pupil – Teacher ratio (X_3)
5. Student - Classroom ratio (X_4)
6. Percentage of SC Population (X_5)
7. Percentage of ST population (X_6)

⁵ Dreze, J. and A. Sen (2002), "India Development and Participation" Oxford University Press, pp. 181-82.

8. Percentage population below poverty line (X_7)
9. Child work participation rate (X_8)
10. Percentage non-agricultural workers to total workers (X_9)
11. Average size of land holding (X_{10})
12. Gross Irrigated Area (X_{11})
13. Female literacy (X_{12})
14. Female work participation rate (X_{13})

In the step wise regression analysis variables are added one-by one and the entire analysis is carried out for each step. The results of the regression analysis show that percentage of habitations with Primary School (within 1 km) (X_1), explains the maximum proportion of variations in GER followed by CWPR (X_8), level of urbanization (X_{14}), ST population (X_6), Gross irrigated Area (X_{11}) and Female literacy (X_{12}). Thereafter, the contribution of other variables in explaining the variations comes out to be negative. Adjusted R^2 increases till the addition of six variables explaining the variations in decreasing order. The value of R^2 decreases when other variables are added into the model. It shows that their contribution in increasing the value of R^2 is not strong enough to counter-balance the reverse effect on the explanatory power of the model due to increase in the degree of freedom ($n-k$). Hence, it is better not to carry out the analysis beyond the sixth step.

Regression co-efficient from step 1 to step 6 shows consistently significant values for primary school (1 km) and child work participation rates, at 1% level of significance. In the 6th model except for female literacy, regression co-efficient for all the other five variables are significant at 1% level of significance.

Regression coefficient for primary school (1 km) is 0.562. It suggests that a unit increase in percentage habitation having primary school within one km distance will result in 0.56 unit increase in gross enrolment ratio at primary level. Thus physical access to school proves to be an important

determinant of child enrolment especially in the case of districts lying west of the Aravallis.

Child work participation rate has negative correlation with GER as described earlier. Regression coefficient for CWPR is -0.405 i.e. a unit increase in CWPR is likely to reduce GER by 0.405 units

Finally a mention should also be made of the fact that the low level of female teacher in the school also adversely affects the schooling of children especially that of the girl child. In the present study of step-wise regression analysis the indicator percentage female teachers to total teachers at primary level does not seem to be significant because of the problem of multi-collinearity. Studies have shown, (Dreze and Sen (1994)), that the low level of girl child enrolment in the school, particularly in many parts of North India can be attributed to the absence of female teachers in the school, low percentage of female teachers in the school or a separate school for girls. This gets reflected in the reluctance of the parents to have their daughters taught by male teachers. This along with the low value attached to female education in much of India links with some deep-rooted features of gender relations.

6.5 Determinants of Gross Enrolment Ratio at the Upper Primary Level

6.5.1 Correlation Analysis:

Among various variables pertaining to access, quality, gender, demand and social factors, Gross Enrolment Ratio at the upper primary level GER (UP) shows significant correlation with the following ones—

1. Ratio of Primary Schools to Middle Schools (PS_MS) = -0.699^{**}
2. Proportion of schools with single teacher (S_T_PS) = -0.670^{**}
3. Adult Female Literacy (F_LT) = 0.611^{**}
4. Percentage habitations with primary schools within one km distance (PS_ONE_KM) = 0.594^{**}
5. Child Work Participation Rate (CWPR) = 0.576^{**}

6. Average size of land-holding (A_LH) =	-0.567**
7. Gross Irrigated Area (GIA) =	0.417*
8. Pupil-Teacher Ratio (PTR) =	-0.356*

**significant at 1 % level

* significant at 5 % level

Gross Enrolment Ratio at upper primary level is negatively correlated with the ratio of primary schools to middle schools with a correlation value of -0.699 . This indicator represents the relative availability of primary schools vis-à-vis middle schools or vice-versa. Wherever PS/MS is high or in other words middle schools are less in proportion to primary schools, Gross Enrolment Ratio at upper primary level are also less. Similarly, higher the percentage of schools with single teacher, lower is the GER(UP). Incidence of child work participation also moves in negative direction vis-à-vis children's enrolment. It is interesting to note that average size of land holding is negatively correlated with GER(UP). Further, Pupil-Teacher Ratio is also negatively correlated with GER(UP).

On the other hand, variables like female literacy and percentage habitations with schools within one km distance have a strongly positive correlation with GER (UP). Gross Irrigated Area is also in positive correlation with GER (UP), significant at the level of 5 percent.

6.5.2 Regression Analysis:

Stepwise Regression Analysis has been attempted to find out the determinants of Gross Upper Primary Enrolment Ratio among the variables above mentioned.

The result shows that the ratio of primary schools to middle schools (PS/MS) explains the maximum proportion of variations in GER (UP) followed by average size of land-holdings (A_LH), pupil-teacher ratio (PTR) and female literacy (F_LT). Other variables are excluded from the analysis due to their net negative contribution in explaining the variations. According to the stepwise regression exercise, the fourth model comes out

to be the most suitable one which explains the maximum 83.6 percent variations in gross enrolment ratio at the upper primary level.

Regression Co-efficient for PS/MS is – 0.522 suggesting thereby that a unit increase in this ratio will result in 0.522 unit decrease in GER (UP). Similarly a unit increase in A_LH is likely to reduce GER (UP) by 0.423 units. In case of PTR, a unit increase in this ratio has a reducing effect of 0.252 units on GER (UP). On the other hand, F_LT has a positive impact on GER (UP). A unit increase in female literacy is likely to induce an enhancement of 0.267 units in GER (UP), thus highlighting the role of female education and awareness in ensuring better educational environment for children especially at the upper primary level.

Other variables like child work participation rate, habitations with schools within one km and single teacher schools that had significant correlation with GER (UP) have been excluded from the regression exercise. It is important to take note of multi-collnearity among variables. Since ratio of primary schools to middle schools show a strong correlation with the above-mentioned excluded variables, it is likely that their contribution has been undermined in the regression analysis.

6.6 Determinants of Gross Enrolment Ratio at the Elementary Level

6.6.1 Correlation Analysis:

Gross Enrolment Ratio at the elementary level GER (El)

shows significant correlation with the following variables--

- | | |
|---|----------|
| 1. Percentage habitations with primary schools within one km distance (PS_ONE_KM) = | 0.622** |
| 2. Proportion of schools with single teacher (S_T_PS) = | -0.569** |
| 3. Ratio of Primary Schools to Middle Schools (PS_MS) = | -0.567** |
| 4. Child Work Participation Rate (CWPR) = | -0.560** |
| 5. Average size of land-holding (A_LH) = | -0.496** |
| 6. Adult Female Literacy (F_LT) = | 0.389* |
| 7. Percentage of SC Population = | 0.383* |
| 8. Gross Irrigated Area (GIA) = | 0.350* |

**significant at 1 % level

* significant at 5 % level

Correlation analysis reveals that the Gross Enrolment Ratio at the Elementary Level has the strongest correlation with the availability factor of schooling i.e. percentage of habitations with primary schools within one km distance ($r = 0.622$). The other important variables running in negative direction to GER (El) are—proportion of schools with single teacher ($r = -0.670$), ratio of primary schools to middle schools ($r = -0.567$) and child work participation rate ($r = -0.560$). Female literacy, on the other hand, has a positive association with the child enrolment.

6.6.2 Regression Analysis:

According to the regression analysis, Model 4 explains the maximum proportion of variations in Gross Elementary Enrolment Ratio. It explains 63.5 percent of variations in GER.

The variables that significantly determine the variations in GER are--

1. Percentage of habitations with primary schools within one km distance--
regression co-efficient = 0.324
2. Percentage of SC Population-- regression co-efficient = 0.391
3. Average size of land-holding (A_LH)-- regression co-efficient = -0.367
4. Child Work Participation Rate (CWPR)-- regression co-efficient = -0.266

6.7 Major Findings

In this chapter an attempt has been made to find out the determinants of enrolment at various levels. A good number of indicators representing a diversity of factors have been drawn from a detailed survey of literature that has helped to form the hypotheses mentioned in the chapter. These hypotheses have been put to test by applying correlation and regression techniques and further analysis has been done.

The main findings of this exercise can be summarized as follows-

- (1) Both the Access factors namely, Primary school within one km of habitation and ratio of primary schools to middle schools stand out as major determinants of enrolment. While availability of school in near vicinity of habitation exercises a strong positive influence on enrolment of children at all the levels, lesser availability of middle schools to primary schools negatively influences the enrolment levels particularly at the upper primary levels and more so that among girls. Physical Access appears to be the dominant factor explaining the inter-district variation in enrolment especially for the districts lying west of Aravallis.
- (2) The urban – rural disparity in involvement of children can also be explained to a large extent, by distance from schools.
- (3) Among Quality factors, Pupil-Teacher Ratio, Student-Classroom Ratio and Proportion of schools with single teacher are found to have negative correlation with enrolment levels which supports the hypothesis in this regard. But level of urbanization does not seem to have a statistically significant influence on levels of enrolment in case of Rajasthan.
- (4) Among Gender factors, Female Literacy does have an impact on enrolment levels at the upper primary levels. This result supports the hypothesis. However, due to uniformly high GERs at the primary level, the exercise does not capture the actual impact of female literacy upon children enrolled at this level.

Other indicators like Female Work Participation Rate and percentage of female teachers to total teachers do not hold much control over total enrolment levels, but as far as girls' enrolment is concerned, their impact has been well documented by various research studies.

- (5) Among Demand factors, Poverty level does not come out to be a significant variable in explaining the variations in enrolment level, but Child Work Participation Rate emerges as a major determinant of child-enrolment, particularly at the upper primary level. Proving the

corresponding hypothesis true, it affects the child-enrolment negatively. It is a strong case therefore, for elimination of child-labour practice in order to assure a healthy environment, schooling and safe childhood to all the children in school-going age.

Percentage of non-agricultural workers to total workers is found to have no significant correlation with GER in Rajasthan at district level.

Gross irrigated area has positive association with GERs, while Average size of Land-Holding has negative correlation with it. Further research is needed to throw some light on this association.

- (6) Regions with high SC population have higher GERs at the primary level, while those with high ST population have lower GERs. However, these are not among major determinants in explaining the variations in Gross Enrolment Ratio.
- (7) Indirect costs such as opportunity cost also becomes significant especially at the upper primary level. Thus children from poor families are less likely to enroll and more likely to drop out.
- (8) The quality of facilities available in school greatly influences enrolment and drop out. The availability of an adequate number of female teachers in the primary schools will help improve the girl's GER mainly in the rural areas.
- (9) Enrolment rate, however, depends on many other factors, but some castes and communities encounter socio-cultural constraints that prevent them from responding to government policies relating to improving access to education. Since the proportion of such castes and communities in the total population varies across districts, it could well be a suitable explanatory factor for inter-district variations in enrolment rate.
- (10) The growing 'social distance' between the teacher and pupils in general and the disadvantaged groups in particular is not conducive for quality education.

CHAPTER VII

A SUMMARY OF CONCLUSIONS

7.1 The present study was carried out to explore the spatial patterns and processes of levels of educational enrolment, of the various social groups of Rajasthan at various levels of education. The striking fact that the improvement in literacy rate recorded by Rajasthan between 1991 and 2001 is the highest in India, there are still large inter district variations in literacy. The education scenario appears to be doubly constrained in Rajasthan; not only is the achievement levels relatively low in absolute terms, but also its distribution across social groups is highly uneven. Thus some people suffer more than others in educational terms. The persistence of large scale inequalities observed in the literacy and enrolment achievements of groups located at polar extremes of the socio-economic prosperity scale is a worrisome reality. The socio economic implications of such a highly distorted educational development are manifold with varying spatial patterns. The low levels of literacy, low enrolment levels coupled with large scale inequalities (women, SCs, STs) is an outcome of the social and economic processes at large.

- The phenomenon of low enrolment is basically a process, rather than a outcome at a point in time. This goes on to imply that the problem is systemic. It is closely linked with social, economic, demographic, cultural and political factors in a patriarchal society which is experimenting with the democratic form and which is yet to realize the goal of citizen participation substantively at all the levels of decision making.
- Enrolment levels broadly confirm the achievements in literacy levels.

- The spatial patterns of levels of enrolment reveal that the districts of western and southern Rajasthan have low levels of educational enrolment.
- There is a striking contrast in the levels of educational enrolment in different regions of Rajasthan. The northeastern, southeastern and central districts have fairly high levels of educational enrolment. On the other hand the western and southern districts emerge as problem areas on this front and needs to be taken on priority basis.
- The spatial patterns of boys and girls GER are not as contiguous as has been the case with total GER as well as the girls GER.
- The range at the upper primary level GER(51.9 points) is much higher than that at the primary level(35.0 points). This goes on to highlight the large scale inter district variations coupled with low levels of enrolment at the upper primary level in the state of Rajasthan.
- More than half of the girl child population in the state is not enrolled at upper primary level. This goes on to reflect very poorly on the educational opportunities available to the girl children in the state at the upper primary level.
- The levels of GER are higher for the rural areas in comparison to the urban areas at the primary level. But the situation is all together different at the next level of education(upper primary) with urban areas recording higher GERS than their rural counterparts. This points to the lack of accessibility and availability both, at the upper primary level in rural areas.
- The change in GER during the period between sixth and seventh All India Educational Survey at the primary level is significantly higher than that at upper primary level. Thus inspite of the lower base of upper primary level to start with, the improvement has been much lower than that at the primary level, therefore, a rather slow progress at this level is an area of concern.

- The change has been all the more significant for the disadvantaged groups (SCs and STs) with all the districts recording higher than percent share in enrolment than their percent share in population.
- Within the socially deprived communities STs have proportionately lower representation in the percent share in enrolment at the primary level. Their share further declines as we move at the next level of the educational pyramid. So it becomes clear that STs are more deprived than SCs on the educational front.
- The problem areas identified from the study of spatial patterns of GER for the total population as well as the socially disadvantaged communities are Barmer, Jaisalmer, Jodhpur, Dungarpur, Udaipur and Banswara.
- The gender disparity rises as one moves up the educational pyramid with primary level characterized by least disparity and thereafter increasing. This pattern suggests relatively higher sustained enrolments upto the primary level and thereafter heavy incidence of dropouts.
- The rural disparities are higher than the urban disparity levels both at the primary as well as at the upper primary level. Sawaimadhopur presents a unique case with very low rural disparity on the one hand and second highest urban disparity after Jaisalmer.
- The gender disparity levels have come down during the period between sixth and seventh All India Educational Survey. The rural areas had higher disparity to start with ,so has shown sharper reduction vis-a vis urban areas.
- The correlation and regression exercises tend to suggest that there is no single factor that could explain the inter district variations but a large number of factors that affect the supply and demand for education and their interaction determine the access to school education. Availability and quality of school facilities are some of the major determinants of access.

- Empirical studies show that both at the level of the household as well as at the level of the states, there is a positive relationship between income (and wealth) and education attainment (thus negative correlation between poverty and GER)
 - While poverty status is also one of the major determinants of who goes to school and for how long, but it does not make up the whole story. Indirect costs such as opportunity cost also becomes a significant factor especially at the upper primary level. Thus children from poor families are less likely to enroll and more likely to drop out.
 - Literature studies also reveals that there is an increasing tendency for the growing 'Social distance' between the teacher and pupils in general and the disadvantaged groups in particular is an unhealthy development for the quality education.
 - Besides other factors, some castes and communities encounter socio-cultural constraints that prevent them from responding to government policies relating to improving access to education. Since the population of such communities varies across the districts, it could well be a suitable explanatory factor for the inter district variations in enrolment rates. This also raises an important policy issue, viz whether incentives to promote access to education should be extended to the entire population belonging to specific castes /communities irrespective of the social and economic background of individuals of these communities. Further research is necessary to establish if there is a high degree of correlation between ethnicity and economic backwardness and between ethnicity and educational performance.
 - The changes on the literacy front in the last decade of twentieth century for the state of Rajasthan seems to indicate that the state is emerging from the "Low level, low growth" trap.
- Still reaching the full enrolment at primary as well as upper primary level remains a major challenge in majority of the districts and a distant goal

in some. These outcomes and results need to be analysed keeping in view the Rajasthan government's efforts to tackle the issue of numbers, universal enrolment and retention, imparting quality education and actualizing acceptable achievement levels. This led the government to launch several major programmes over the years to improve the formal education system. These are:-

Non-formal education programme (1975)

Shiksha Karmi Project (1987-88)

LOK Jumbish Pariyojana (1992)

Rajiv Gandhi Swarna Jayanti Pathshalas

District Primary Education Programme (1994)

These programmes were conceived with a specific focus such as Shiksha Karmi project was started after the realization that UPE would not be possible in 10-15 percent of the villages in Rajasthan due to teacher absenteeism in remotely located schools of Rajasthan¹. Another major programme, the Lok Jumbish Pariyojana (underway since 1992 in 13 districts of Rajasthan) was built around the core ideals of debureaucratisation and thoughtful decentralization of decision making process with the major goal to provide access to primary education to children (between 6-14 years of age), striving to enroll children in regular schools and ensuring that all enrolled children regularly attend school. These programmes claim big achievements but in reality there are some conceptual and practical weaknesses. Also their claims made require a careful examination. These programmes and various others are often a result of political necessity to display action and commitment which disrupts consolidation of the existing education system and improvement within it. But the decentralization of primary education to Panchayati Raj institutions had been a step in the right direction. These decentralized programmes were

¹ Bodh shiksha samiti (1999) ; " *A study of Shiksha karmi Project , Rajasthan*" pp. 1, jaipur, Rajasthan

in continuation of the state government's effort to decentralize the primary education to panchayat samitis right from 1959 onwards. J.P.Naik² while acting as a chairman of the Government of Rajasthan's high-level committee, observed the positive outcomes of such a decentralized approach, amidst several disfunctionalities and political pathologies. Though nearly 45 years have passed since the Rajasthan Government entrusted the management and supervision of primary education to the Panchayati Raj institutions, this experience has remained virtually unnoticed at the academic level. As a result, the concerned all-India policy planners are not in a position to derive the necessary inputs from Rajasthan while dealing with the questions of institutional design for educational management under Panchayati Raj institutions. Some other questions which need to be highlighted here are:-

- Has the power and authority devolved to PRIs reached the people or has it become another layer of bureaucracy?
- Do local institutions have the capacity to manage education and if not what is being done to strengthen their capacity?
- What measures can be taken to ensure that caste and patriarchy do not prejudice effective management at the local level?

The wide range and ramifications of the issues outlined require a comprehensive and integrated approach to find solutions that are inter-sectoral, and pave the way for root and branch reform of the education system in Rajasthan.

7.2 SUGGESTIONS

The uncompromising commitment to the universalisation of elementary education, encompassing its three variants-equality, quality and quantity remain unrealized even after five decades of planned efforts. There

² Mathur,P.C.; "*Democratic Response to Educational Challenges in Rajasthan 1959-93: some lessons for Institution building under India's Constitutional Panchayats*" Journal of educational planning and administration,Vol.8,No.2. 1994 pp 171

is a urgent need to focus on both demand and supply side interventions. Some of these can be outlined as follows:-

- The very first step in increasing access to school is to address the supply of schools, classrooms and teachers. Efforts to increase the number of school places therefore need to target selected districts.

The policy of the Government is that schools must have a minimum of two rooms and two teachers and that no child should have to walk more than one kilometer to school. The wide diversity in local conditions, combined with government policy, gives rise to considerable variations in student- teacher and student-classroom ratios as observed in the study. The normative STR in India (40: 1) when increases makes introducing more effective teaching and learning strategies difficult and places an undue burden on teachers, especially in rural areas. As efforts to improve attendance intensify, the ratio which at present is higher than the norm in majority of the districts of Rajasthan is likely to improve. Also in an inegalitarian society characterized by patriarchal norms mores percentage of female teachers at the primary level is the need of hour especially for the girl child education.

- Improving the quality of schooling to increase the demand for it is the most important demand side intervention for retaining children in school. Improving school quality can make the flow of students more efficient. By improving the flow of students who repeat resources spent on them can be spent to improve school and expand access.
- Enforcing compulsory attendance laws could also reduce the number of dropouts. Though the elementary education has been made compulsory (constitutionally) but the laws making education compulsory are seldom enforced. To achieve this, the Kerala model can be adopted where ayas (child care assistants) are employed in some schools to accompany truant students to school. Other strategies to improve school attendance include monitoring of student attendance by community school organizations (village education

committees), enrolment campaigns and village level surveys that identify students who are not in school.

- Implementing automatic promotion at the primary level of schooling

Although it is questionable on pedagogical grounds, but still can be one way to reduce repetition. Some states (such as Maharashtra and Karnataka) follow a “no detention” (automatic promotion) policy throughout the primary grades while others follow a policy of no detention are not reported regularly, and those that are reported are unreliable. The District Elementary Report card (2002-03) record high repetition rates for grades 1 and 2 in majority of the districts of Rajasthan. This repetition may thus be a much more significant cause of average enrolment than suggested by the officially reported data. So even when a district constructs enough spaces for students of primary school age, it will not be able to accommodate all students of that age group without crowding, if overage repeaters occupy school places. This further leads to deterioration in the classroom environment and as a result increased dropouts.

- Offsetting the cost of children’s labour.

As observed from the study, the opportunity cost is one of the determinants of schooling. To offset the opportunity costs of children’s labour could require “bonding” children to school at a rate equal to what families would receive if their children worked. Although several incentives programmes, try to offset some of the direct costs of schooling, none compensates families for children’s labour. However resources with the Government since are more often than not, inadequate for extending this provision to all students. Therefore, approach should be to target specific group of population. In addition measures like flexible school timing, changing leave cycles in accordance with the peak agricultural operations in rural areas , providing subsidized child care facilities in urban slums etc could considerably improve enrolment and attendance.

- The need of the hour is to launch programmes that target specific group of population in selected districts.

To conclude the problem needs to be examined, not at a given point in time however important that may be for setting short term goals. It should, on the contrary, be approached as a product-in-progress with a past, present and a future demanding intervention through social participation. Human development at a point in time is a socio-cultural product of society that is specific to certain groups. Thus the need is to reorient the approach to undertake this formidable challenge of human and societal development.

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LITERACY RATES BY SEX FOR RAJASTHAN						
YEAR 2001						
S.No.	STATE/DISTRICTS	Persons	Males	Females		
	RAJASTHAN	61.03	76.46	44.34		
1	AJMER	65.06	79.96	49.1		
2	ALWAR	62.48	78.91	43.95		
3	BANSWARA	44.22	60.24	27.86		
4	BARAN	60.37	76.86	42.18		
5	BARMER	59.65	73.64	43.91		
6	BHARATPUR	64.24	81.39	44.12		
7	BHILWARA	51.09	68.12	33.47		
8	BIKANER	57.54	70.78	42.55		
9	BUNDI	55.8	72.17	37.76		
10	CHITTAURGARH	54.37	71.82	36.45		
11	CHURU	66.97	79.52	53.87		
12	DAUSA	62.75	80.37	43.15		
13	DHOLPUR	60.77	75.85	42.36		
14	DUNGARPUR	48.32	66.19	31.22		
15	GANGANAGAR	64.84	75.49	52.69		
16	HANUMANGARH	65.72	77.41	52.71		
17	JAIPUR	70.63	83.58	56.18		
18	JAISALMER	51.4	66.89	32.25		
19	JALOR	46.51	65.1	27.53		
20	JHALAWAR	57.98	74.29	40.39		
21	JHUNJHUNUN	73.61	86.61	60.1		
22	JODHPUR	57.38	73.86	39.18		
23	KARALI	64.59	80.93	45.44		
24	KOTA	74.45	86.25	61.25		
25	NAGPUR	58.26	75.33	40.45		
26	PALI	54.92	73.06	36.7		
27	RAJSAMAND	55.82	74.05	37.89		
28	SAWAI MADHOPUR	57.34	76.75	35.44		
29	SIKAR	71.19	85.2	56.7		
30	SIROHI	54.39	70.58	37.37		
31	TONK	52.39	71.25	32.3		
32	UDAIPUR	59.26	74.47	43.71		

APPENDIX

LITERACY RATES FOR RURAL AND URBAN AREAS								
YEAR 2001								
S.No.	DISTRICTS	RURAL			URBAN			
		TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	
1	AJMER	53.09	72.6	32.72	81.69	89.89	72.58	
2	ALWAR	58.88	76.54	39.16	82.27	91.5	71.24	
3	BANSWARA	40.78	57.49	23.78	84.84	92.13	77.03	
4	BARAN	57.43	74.81	38.21	74.49	86.77	61.11	
5	BARMER	58.14	72.15	42.43	77.19	90.52	61.54	
6	BHARATPUR	61.44	79.95	39.62	75.18	87.08	61.47	
7	BHILWARA	44.59	62.85	26.09	75.22	86.81	62.29	
8	BIKANER	46.33	61.92	28.83	76.17	85.38	65.62	
9	BUNDI	51.59	68.99	32.41	73.43	85.53	60.15	
10	CHITTAURGARH	49.11	67.91	29.98	81.01	91.06	70.19	
11	CHURU	65.29	78.63	51.45	71.15	81.71	59.95	
12	DAUSA	61.02	79.19	40.83	77.13	90.12	62.54	
13	DHOLPUR	59.22	75.29	39.37	67.48	78.35	54.87	
14	DUNGARPUR	45.69	64.12	28.19	79.43	89.25	69.03	
15	GANGANAGAR	60.39	72	47.27	77.6	85.34	68.54	
16	HANUMANGARH	63.65	75.97	50.01	73.82	83	63.4	
17	JAIPUR	62.96	79.96	44.42	78.09	87.03	67.89	
18	JAISALMER	47.02	63.09	27.45	73.99	85.7	58.33	
19	JALOR	44.81	63.52	25.88	66.33	82.61	47.97	
20	JHALAWAR	54.13	71.46	35.51	80.33	90.57	69.08	
21	JHUNJHUNUN	73.24	86.36	59.8	75	87.51	61.28	
22	JODHPUR	46.88	66.94	25.1	69.36	83.06	54.47	
23	KARALI	63.62	80.45	43.84	70.22	83.81	54.65	
24	KOTA	67.34	82.56	50.6	80.39	89.28	70.3	
25	NAGOUR	55.92	73.66	37.58	69.36	83.06	54.47	
26	PALI	50.39	69.39	31.76	71.01	85.4	55.27	
27	RAJSAMAND	51.93	71.23	33.22	80.58	91.11	69.24	
28	SAWAI MADHOPUR	53.24	74.13	29.69	74.23	87.54	59.17	
29	SIKAR	70.39	84.74	55.7	74.23	86.91	60.6	
30	SIROHI	48.97	65.94	31.47	66.33	82.61	47.97	
31	TONK	47.77	68.48	25.62	69.57	81.65	56.89	
32	UDAIPUR	52.52	69.52	35.46	86.19	93.35	78.29	

APPENDIX

GROWTH IN LITERACY IN RAJASTHAN						
1991--2001						
S.No.	STATE/DISTRICTS	TOTAL	MALE	FEMALE		
	RAJASTHAN	58.31	39.04	116.93		
1	AJMER	24.3	16.31	42.32		
2	ALWAR	45	29.4	94.99		
3	BANSWARA	70.08	57.86	107.6		
4	BARAN	65.08	42.95	144.95		
5	BARMER	159.57	101.42	471.74		
6	BHARATPUR	49.53	31.04	125.1		
7	BHILWARA	61.42	48.22	102.85		
8	BIKANER	37.89	29.56	57.42		
9	BUNDI	70.38	52.26	134.1		
10	CHITTAURGARH	58.61	42.08	112.54		
11	CHURU	92.55	55.01	211.03		
12	DAUSA	70.19	41.62	204.95		
13	DHOLPUR	73.18	50.35	177.95		
14	DUNGARPUR	58.17	44.8	102.73		
15	GANGANAGAR	45.54	32.49	75.22		
16	HANUMANGARH	69.95	45.21	137.22		
17	JAIPUR	40.19	25.31	76.44		
18	JAISALMER	71.05	48.68	185.9		
19	JALOR	95.75	67.05	255.23		
20	JHALAWAR	76.02	54.06	149.63		
21	JHUNJHUNUN	54.64	26.77	135.32		
22	JODHPUR	41.02	30.17	73.52		
23	KARALI	85.98	53.31	149.27		
24	KOTA	34.78	22.06	63.07		
25	NAGPUR	83.21	52.64	204.36		
26	PALI	52.73	34.25	116.26		
27	RAJSAMAND	68.69	46.17	143.82		
28	SAWAI MADHOPUR	54.81	39.17	120.54		
29	SIKAR	67.55	32.86	185.21		
30	SIROHI	70.29	52.64	119.95		
31	TONK	55.6	40.7	11.94		
32	UDAIPUR	69.8	52.82	114.16		

APPENDIX

GENDER DISPARITY IN LEVELS OF LITERACY					
S.No.	STATE / DISTRICTS	1991	2001		
	RAJASTHAN	0.68	0.61		
1	AJMER	0.62	0.62		
2	ALWAR	0.73	0.68		
3	BANSWARA	0.60	0.59		
4	BARAN	0.75	0.66		
5	BARMER	0.84	0.55		
6	BHARATPUR	0.83	0.74		
7	BHILWARA	0.63	0.63		
8	BIKANER	0.51	0.51		
9	BUNDI	0.67	0.63		
10	CHITTAURGARH	0.69	0.65		
11	CHURU	0.70	0.52		
12	DAUSA	0.90	0.73		
13	DHOLPUR	0.75	0.63		
14	DUNGARPUR	0.67	0.63		
15	GANGANAGAR	0.49	0.44		
16	HANUMANGARH	0.60	0.49		
17	JAIPUR	0.63	0.60		
18	JAISALMER	0.81	0.63		
19	JALOR	0.88	0.69		
20	JHALAWAR	0.68	0.63		
21	JHUNJHUNUN	0.80	0.63		
22	JODHPUR	0.65	0.64		
23	KARALI	0.87	0.71		
24	KOTA	0.60	0.60		
25	NAGPUR	0.80	0.65		
26	PALI	0.77	0.67		
27	RAJSAMAND	0.75	0.67		
28	SAWAI MADHOPUR	0.81	0.78		
29	SIKAR	0.86	0.64		
30	SIROHI	0.62	0.60		
31	TONK	0.76	0.72		
32	UDAIPUR	0.57	0.57		

APPENDIX

GROSS PRIMARY ENROLMENT RATIOS IN RAJASTHAN										
YEAR 1993 & 2002										
		TOTAL			GIRLS			BOYS		
S.No.	STATE/DISTRICTS	GER_93	GER_02	GROWTH	GER_9	GER_02	GROWTH	GER_9	GER_0	GROWTH
	RAJASTHAN	80.5	100.6	24.9	57.2	95.4	66.8	101.6	105.3	3.6
1	AJMER	94.4	103.4	9.5	72.1	94.2	30.7	115.0	111.8	-2.7
2	ALWAR	86.6	117.5	35.7	64.2	113.6	76.8	106.6	121.0	13.5
3	BANSWARA	79.5	84.7	6.7	47.5	76.8	61.5	109.6	92.3	-15.8
4	BARMER	83.9	86.5	3.1	59.5	76.4	28.5	105.8	95.5	-9.7
5	BHARATPUR	67.5	119.5	77.1	44.8	120.4	169.1	86.3	118.7	37.6
6	BHILWARA	65.5	98.8	50.8	46.0	90.7	97.4	84.2	106.5	26.5
7	BIKANER	72.8	99.9	37.2	51.5	91.7	78.0	92.5	107.4	16.2
8	BUNDI	86.5	108.5	25.4	57.1	105.6	85.2	112.4	111.0	-1.2
9	CHITTAURGARH	80.4	96.7	20.2	53.3	88.5	65.9	107.2	104.8	-2.3
10	CHURU	73.4	95.4	29.9	48.5	91.2	88.3	97.1	99.3	2.3
11	DHOLPUR	79.2	119.7	51.1	50.7	124.6	145.8	100.1	116.0	15.9
12	DUNGARPUR	91.0	91.3	0.3	68.2	81.4	19.4	113.8	101.2	-11.1
13	GANGANAGAR	77.6	97.8	26.1	64.7	93.6	44.7	89.5	101.7	13.7
14	JAIPUR	88.3	90.2	2.2	65.3	87.4	33.8	109.0	92.7	-15.0
15	JAISALMER	70.4	90.7	28.8	42.2	79.1	87.4	95.0	100.9	6.1
16	JALOR	42.6	92.5	117.0	29.2	80.8	176.6	54.8	103.0	88.1
17	JHALAWAR	81.5	118.6	45.5	56.9	118.3	108.0	103.1	118.9	15.4
18	JHUNJHUNUN	88.5	107.3	21.2	76.0	105.7	39.1	99.8	108.7	8.9
19	JODHPUR	77.3	93.8	21.4	53.0	88.1	66.1	99.0	98.9	-0.1
20	KOTA	94.4	108.8	15.2	75.2	108.6	44.6	111.5	108.9	-2.4
21	NAGPUR	72.7	104.7	44.1	47.5	99.4	109.4	95.6	109.6	14.6
22	PALI	90.2	114.3	26.7	60.5	108.0	78.5	116.7	120.0	2.8
23	SAWAI MADHOPUR	67.5	109.0	61.5	39.3	106.6	171.2	90.8	111.0	22.3
24	SIKAR	85.6	101.1	18.1	68.4	98.1	43.4	101.1	103.8	2.7
25	SIROHI	122.5	97.6	-20.3	56.3	85.4	51.7	182.3	108.7	-40.4
26	TONK	76.3	104.4	36.9	45.1	98.6	118.7	105.2	109.8	4.4
27	UDAIPUR	78.0	90.3	15.8	53.8	83.1	54.3	101.2	97.2	-3.9
GER = Gross Enrolment Ratio										
GR RATE = Growth rate in Gross Enrolment Ratio between 1993 and 2002										

APPENDIX

GROSS UPPER PRIMARY ENROLMENT RATIOS IN RAJASTHAN										
YEAR 1993 & 2002										
TOTAL			GIRLS				BOYS			
S.No.	STATE/DISTRICTS	GER_9	GER_02	GROWTH	GER_93	GER_0	GROWTH	GER_93	GER_02	GROWTH
	RAJASTHAN	46.3	61.0	31.8	25.2	45.2	79.0	64.7	74.9	15.7
1	AJMER	55.1	65.8	19.5	36.9	49.8	34.9	70.7	79.6	12.6
2	ALWAR	57.8	76.3	32.2	33.0	61.0	85.0	78.0	88.8	14.0
3	BANSWARA	29.8	54.1	81.4	16.8	37.0	120.6	42.7	71.0	66.2
4	BARMER	28.6	34.2	19.3	8.1	16.8	107.9	46.8	49.5	5.9
5	BHARATPUR	55.0	65.9	19.9	28.3	51.4	81.5	74.8	76.7	2.5
6	BHILWARA	42.2	55.7	32.0	23.3	38.6	65.6	59.1	71.1	20.2
7	BIKANER	39.4	52.4	32.7	26.0	37.4	43.7	51.8	66.1	27.7
8	BUNDI	95.9	63.3	-34.0	71.2	45.4	-36.2	116.7	78.3	-32.9
9	CHITTAURGARH	42.2	56.5	34.0	22.8	40.8	78.7	59.3	70.4	18.8
10	CHURU	41.6	54.2	30.3	20.8	42.0	102.2	60.2	65.0	8.0
11	DHOLPUR	42.2	58.5	38.8	17.8	42.9	141.7	59.2	69.4	17.2
12	DUNGARPUR	37.3	54.8	47.0	23.0	43.6	89.0	50.7	65.4	29.1
13	GANGANAGAR	43.9	66.0	50.3	29.2	57.2	95.9	57.4	74.1	29.1
14	JAIPUR	57.5	65.2	13.4	34.1	50.4	47.5	77.8	78.1	0.4
15	JAISALMER	34.5	34.5	0.0	12.0	17.8	48.9	51.9	47.4	-8.7
16	JALOR	23.8	41.8	75.6	10.6	19.1	79.1	35.6	62.2	74.7
17	JHALAWAR	35.4	56.7	60.2	18.1	37.5	107.2	50.6	73.6	45.4
18	JHUNJHUNUN	67.6	86.1	27.3	43.9	76.1	73.3	89.7	95.3	6.3
19	JODHPUR	45.1	52.0	15.2	25.3	34.9	37.7	62.7	67.2	7.2
20	KOTA	31.7	72.1	127.9	15.8	59.6	277.7	45.0	82.6	83.8
21	NAGAU	41.6	57.8	38.8	15.1	37.5	147.9	65.0	75.7	16.5
22	PALI	46.3	59.6	28.8	19.9	38.0	90.4	69.6	78.7	13.1
23	SAWAI MADHOPUR	43.1	66.3	53.9	19.3	43.2	123.3	61.5	84.3	37.0
24	SIKAR	54.0	80.1	48.3	27.8	68.3	145.6	76.8	90.3	17.6
25	SIROHI	56.9	52.1	-8.3	13.0	29.9	130.3	97.6	72.8	-25.4
26	TONK	43.2	59.9	38.6	18.2	35.5	95.0	65.4	81.5	24.6
27	UDAIPUR	41.5	53.4	28.7	24.9	39.9	60.3	57.3	66.3	15.6
	GER = Gross Enrolment Ratio									
	GR_RATE = Growth rate in Gross Enrolment Ratio between 1993 and 2002									

APPENDIX

GROSS ELEMENTARY ENROLMENT RATIOS IN RAJASTHAN										
YEAR 1993 & 2002										
		TOTAL			GIRLS			BOYS		
S.No.	STATE/DISTRICTS	GER 93	GER 02	GROWTH	GER 9	GER 02	GROWTH	GER 93	GER 02	GROWTH
	RAJASTHAN	68.7	86.9	26.5	46.3	78.2	69.1	88.7	94.6	6.7
1	AJMER	80.4	90.0	11.9	59.8	78.7	31.6	98.8	100.0	1.3
2	ALWAR	76.6	103.3	34.8	53.8	96.1	78.5	96.5	109.6	13.6
3	BANSWARA	62.6	74.3	18.8	36.9	63.1	70.8	87.2	85.1	-2.4
4	BARMER	64.7	68.3	5.6	41.7	55.8	33.8	85.2	79.5	-6.7
5	BHARATPUR	63.0	100.5	59.4	39.1	96.9	147.5	82.1	103.4	25.9
6	BHILWARA	57.5	83.9	46.1	38.3	73.1	90.9	75.4	94.0	24.8
7	BIKANER	61.6	84.0	36.3	43.0	73.6	71.1	78.9	93.6	18.7
8	BUNDI	89.7	92.9	3.6	61.8	85.2	37.8	113.9	99.6	-12.5
9	CHITTAURGARH	67.0	82.6	23.2	43.0	72.4	68.2	89.8	92.3	2.8
10	CHURU	62.5	81.2	30.0	39.1	74.6	90.8	84.2	87.3	3.7
11	DHOLPUR	66.0	97.9	48.3	39.2	96.1	145.2	85.4	99.2	16.2
12	DUNGARPUR	72.5	78.8	8.6	52.9	68.6	29.6	91.7	88.7	-3.3
13	GANGANAGAR	65.9	86.8	31.7	52.4	81.0	54.5	78.3	92.1	17.6
14	JAIPUR	78.1	81.9	4.9	55.1	75.3	36.6	98.6	87.8	-10.9
15	JAISALMER	58.2	71.6	23.0	32.4	59.2	82.8	79.9	82.1	2.8
16	JALOR	36.0	74.6	107.4	22.7	59.2	160.6	48.0	88.6	84.6
17	JHALAWAR	65.1	96.6	48.3	43.1	89.5	107.9	84.5	102.8	21.8
18	JHUNJHUNUN	81.2	99.8	23.0	64.6	95.2	47.4	96.3	104.0	8.1
19	JODHPUR	66.2	79.4	19.9	43.5	69.8	60.5	86.4	87.9	1.7
20	KOTA	72.2	95.8	32.7	54.6	91.6	68.0	87.6	99.4	13.5
21	NAGPUR	62.2	88.9	42.9	36.6	78.7	114.7	85.1	98.0	15.1
22	PALI	74.3	94.6	27.2	45.9	82.8	80.3	99.7	105.0	5.4
23	SAWAI MADHOPUR	59.1	94.3	59.6	32.6	85.3	161.6	80.5	101.6	26.2
24	SIKAR	74.8	93.9	25.6	54.6	88.0	61.1	92.7	99.1	7.0
25	SIROHI	99.0	81.3	-17.8	40.6	65.3	60.8	152.2	96.0	-37.0
26	TONK	64.9	89.1	37.3	36.0	77.2	114.7	91.3	100.0	9.4
27	UDAIPUR	65.5	77.6	18.6	43.9	68.3	55.5	86.0	86.6	0.6
GER = Gross Enrolment Ratio										
GR RATE = Growth rate in Gross Enrolment Ratio between 1993 and 2002										

APPENDIX

GROWTH RATE IN GROSS ELEMENTARY ENROLMENT RATIOS DURING 1993--2002						
			TOTAL	GIRLS	BOYS	
S.No.	STATE/DISTRICTS	Exp.g_rate	Exp.g_rate	Exp.g_rate		
	RAJASTHAN	2.6	5.8	0.7		
1	AJMER	1.3	3.1	0.1		
2	ALWAR	3.3	6.4	1.4		
3	BANSWARA	1.9	5.9	-0.3		
4	BARMER	0.6	3.2	-0.8		
5	BHARATPUR	5.2	10.1	2.6		
6	BHILWARA	4.2	7.2	2.5		
7	BIKANER	3.4	6.0	1.9		
8	BUNDI	0.4	3.6	-1.5		
9	CHITTAURGARH	2.3	5.8	0.3		
10	CHURU	2.9	7.2	0.4		
11	DHOLPUR	4.4	10.0	1.7		
12	DUNGARPUR	0.9	2.9	-0.4		
13	GANGANAGAR	3.1	4.8	1.8		
14	JAIPUR	0.5	3.5	-1.3		
15	JAISALMER	2.3	6.7	0.3		
16	JALOR	8.1	10.6	6.8		
17	JHALAWAR	4.4	8.1	2.2		
18	JHUNJHUNUN	2.3	4.3	0.9		
19	JODHPUR	2.0	5.3	0.2		
20	KOTA	3.1	5.8	1.4		
21	NAGAU	4.0	8.5	1.6		
22	PALI	2.7	6.6	0.6		
23	SAWAI MADHOPUR	5.2	10.7	2.6		
24	SIKAR	2.5	5.3	0.7		
25	SIROHI	-2.2	5.3	-5.1		
26	TONK	3.5	8.5	1.0		
27	UDAIPUR	1.9	4.9	0.1		
Exp.g_rate = per annum Exponential Growth Rate in GER during 1993--2002						

APPENDIX

POPULATION SHARE OF SCHEDULED CASTES AND SCHEDULED TRIBES								
YEAR 2001								
S.No.	STATE/DISTRICTS	SC_POP			ST_POP			
		TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	
	RAJASTHAN	17.16	17.23	17.08	12.56	12.41	12.72	
1	GANGANAGAR	33.72	33.19	34.34	0.82	0.83	0.81	
2	HANUMANGARH	26.13	26.03	26.24	0.66	0.67	0.65	
3	BIKANER	19.96	19.91	20.03	0.36	0.37	0.34	
4	CHURU	21.17	21.48	20.83	0.52	0.54	0.50	
5	JHUNJHUNUN	16.16	16.31	16.00	1.92	1.94	1.91	
6	ALWAR	18.01	17.92	18.12	8.02	8.05	7.98	
7	BHARATPUR	21.70	21.76	21.62	2.24	2.22	2.26	
8	DHOLPUR	20.13	20.02	20.26	4.84	4.82	4.87	
9	KARALI	23.16	23.08	23.24	22.37	22.39	22.36	
10	SAWAI MADHOPUR	19.98	19.88	20.10	21.58	21.72	21.42	
11	DAUSA	21.21	21.03	21.41	26.82	26.89	26.73	
12	JAIPUR	14.81	14.74	14.88	7.86	7.86	7.87	
13	SIKAR	14.85	15.00	14.70	2.73	2.77	2.69	
14	AJMER	17.71	17.59	17.83	2.41	2.42	2.40	
15	TONK	19.24	19.26	19.21	12.04	12.16	11.92	
16	JAISALMER	14.58	14.23	15.01	5.48	5.33	5.65	
17	JODHPUR	15.81	15.76	15.87	2.76	2.74	2.77	
18	NAGPUR	19.65	19.75	19.54	0.23	0.25	0.22	
19	PALI	17.77	18.11	17.42	5.81	5.98	5.65	
20	BARMER	15.73	15.68	15.78	6.04	6.06	6.02	
21	JALOR	18.03	18.43	17.62	8.75	9.03	8.46	
22	SIROHI	19.15	19.39	18.88	24.76	24.64	24.90	
23	BHILWARA	15.72	15.68	15.76	8.97	9.07	8.86	
24	UDAIPUR	6.01	6.07	5.95	47.86	47.53	48.21	
25	CHITTAURGARH	13.90	13.90	13.90	21.53	21.50	21.56	
26	DUNGARPUR	4.15	4.21	4.09	65.14	64.94	65.33	
27	BANSWARA	4.28	4.28	4.29	72.27	71.95	72.61	
28	BUNDI	18.11	18.09	18.13	20.24	20.34	20.13	
29	KOTA	19.16	19.05	19.28	9.69	9.75	9.62	
30	JHALAWAR	15.64	15.69	15.60	12.02	12.08	11.96	
31	RAJASAMAND	12.41	12.50	12.32	13.09	13.31	12.87	
32	BARAN	17.72	17.75	17.70	21.23	21.13	21.34	
	SC_POP = Percentage share of SC population to total population							
	ST_POP = Percentage share of ST population to total population							
	Source-- Census of India, 2001							

APPENDIX

GENDER DISPARITY IN LEVELS OF ENROLMENT AT THE PRIMARY LEVEL								
S.No.	STATE / DISTRICTS	TOTAL		RURAL		URBAN		
		1993	2002	1993	2002	1993	2002	
	RAJASTHAN	0.412	0.086	0.492	0.087	0.172	0.082	
1	AJMER	0.380	0.153	0.590	0.211	0.091	0.063	
2	ALWAR	0.383	0.066	0.412	0.050	0.245	0.208	
3	BANSWARA	0.590	0.138	0.466	0.144	0.140	0.057	
4	BARMER	0.424	0.169	0.512	0.173	0.256	0.103	
5	BHARATPUR		0.015	0.397	0.050	0.217	0.116	
6	BHILWARA	0.386	0.137	0.657	0.164	0.226	0.037	
7	BIKANER	0.394	0.137	0.562	0.176	0.128	0.042	
8	BUNDI	0.507	0.047	0.577	0.031	0.331	0.125	
9	CHITTAURGARH	0.502	0.142	0.580	0.140	0.174	0.154	
10	CHURU	0.470	0.070	0.547	0.047	0.276	0.128	
11	DHOLPUR	0.470	0.078	0.527	0.130	0.245	0.136	
12	DUNGARPUR	0.407	0.174	0.426	0.173	0.167	0.163	
13	GANGANAGAR	0.229	0.071	0.256	0.049	0.162	0.149	
14	JAIPUR	0.393	0.054	0.571	0.055	0.129	0.070	
15	JAISALMER	0.530	0.192	0.610	0.192	0.322	0.237	
16	JALOR	0.343	0.195	0.774	0.210	0.230	0.014	
17	JHALAWAR	0.427	0.005	0.483	0.008	0.199	0.072	
18	JHUNJHUNUN	0.211	0.026	0.201	0.006	0.249	0.108	
19	JODHPUR	0.434	0.094	0.663	0.133	0.112	0.003	
20	KOTA	0.321	0.002	0.432	0.022	0.143	0.041	
21	NAGAU	0.469	0.089	0.515	0.090	0.233	0.094	
22	PALI	0.509	0.106	0.600	0.116	0.200	0.067	
23	SAWAI MADHOPUR	0.531	0.039	0.601	0.008	0.260	0.216	
24	SIKAR	0.293	0.049	0.305	0.014	0.252	0.182	
25	SIROHI	1.420	0.204	0.526	0.213	0.213	0.153	
26	TONK	0.582	0.098	0.700	0.103	0.196	0.086	
27	UDAIPUR	0.444	0.124	0.516	0.136	0.143	0.079	

APPENDIX

GENDER DISPARITY IN LEVELS OF ENROLMENT AT THE UPPER PRIMARY LEVEL									
S.No.	STATE / DISTRICTS	TOTAL		RURAL		URBAN			
		1993	2002	1993	2002	1993	2002		
	RAJASTHAN	2.709	0.312	0.712	0.371	0.235	0.171		
1	AJMER	2.582	0.299	0.773	0.522	0.156	0.088		
2	ALWAR	2.674	0.261	0.579	0.282	0.307	0.203		
3	BANSWARA	2.707	0.385	0.556	0.415	0.260	0.181		
4	BARMER	3.064	0.556	1.084	0.639	0.428	0.157		
5	BHARATPUR	2.723	0.256	0.699	0.270	0.324	0.242		
6	BHILWARA	2.705	0.363	0.687	0.479	0.219	0.100		
7	BIKANER	2.599	0.332	0.834	0.511	0.122	0.118		
8	BUNDI	2.514	0.340	0.771	0.425	0.106	0.031		
9	CHITTAURGARH	2.715	0.326	0.707	0.394	0.219	0.129		
10	CHURU	2.762	0.258	0.732	0.270	0.307	0.224		
11	DHOLPUR	2.823	0.288	0.820	0.325	0.335	0.212		
12	DUNGARPUR	2.643	0.242	0.463	0.262	0.233	0.068		
13	GANGANAGAR	2.595	0.168	0.513	0.196	0.163	0.082		
14	JAIPUR	2.658	0.260	0.846	0.374	0.181	0.121		
15	JAISALMER	2.938	0.502	1.133	0.676	0.334	0.211		
16	JALOR	2.825	0.631	1.118	0.672	0.508	0.428		
17	JHALAWAR	2.747	0.402	0.747	0.455	0.324	0.265		
18	JHUNJHUNUN	2.610	0.171	0.467	0.134	0.445	0.311		
19	JODHPUR	2.694	0.379	1.122	0.619	0.151	0.133		
20	KOTA	2.755	0.219	0.599	0.315	0.128	0.116		
21	NAGPUR	2.934	0.422	0.903	0.441	0.419	0.343		
22	PALI	2.844	0.442	0.840	0.505	0.402	0.271		
23	SAWAI MADHOPUR	2.803	0.422	0.782	0.462	0.313	0.381		
24	SIKAR	2.742	0.201	0.662	0.179	0.363	0.283		
25	SIROHI	3.178	0.513	0.912	0.595	0.390	0.316		
26	TONK	2.856	0.503	0.913	0.626	0.284	0.232		
27	UDAIPUR	2.663	0.298	0.619	0.368	0.149	0.119		

APPENDIX

GENDER DISPARITY IN LEVELS OF ENROLMENT AT THE ELEMENTARY LEVEL					
S.No.	STATE / DISTRICTS	1993	2002		
	RAJASTHAN	0.423	0.145		
1	AJMER	0.359	0.188		
2	ALWAR	0.403	0.118		
3	BANSWARA	0.533	0.207		
4	BARMER	0.450	0.231		
5	BHARATPUR	0.457	0.056		
6	BHILWARA	0.407	0.187		
7	BIKANER	0.376	0.179		
8	BUNDI	0.470	0.126		
9	CHITTAURGARH	0.473	0.179		
10	CHURU	0.475	0.114		
11	DHOLPUR	0.485	0.027		
12	DUNGARPUR	0.371	0.183		
13	GANGANAGAR	0.259	0.099		
14	JAIPUR	0.407	0.112		
15	JAISALMER	0.537	0.219		
16	JALOR	0.392	0.277		
17	JHALAWAR	0.426	0.116		
18	JHUNJHUNUN	0.289	0.077		
19	JODHPUR	0.437	0.165		
20	KOTA	0.317	0.068		
21	NAGPUR	0.519	0.171		
22	PALI	0.523	0.195		
23	SAWAI MADHOPUR	0.539	0.143		
24	SIKAR	0.361	0.097		
25	SIROHI	1.097	0.279		
26	TONK	0.583	0.201		
27	UDAIPUR	0.429	0.168		

APPENDIX

LIST OF VARIABLES EMPLOYED IN THE REGRESSION ANALYSIS		
DEPENDENT VARIABLES	EL_GER	GROSS ENROLMENT RATIO AT THE ELEMENTARY LEV
	GER_P	GROSS ENROLMENT RATIO AT THE PRIMARY LEVEL
	GER_UP	GROSS ENROLMENT RATIO AT THE UPPER PRIMARY
Access factors	PS_ONEKM	Primary school within one km of habitation
	PS_MS	Ratio of primary school to middle school
Quality factors	PTR	Pupil-Teacher ratio (P.T.R.)
	SCR	Student-Classroom ratio (SCR)
	SIN_T_PS	Proportion of schools with single teacher
	URB	Level of urbanization
Gender factors	F_T	Percentage of female teachers to total teachers
	FWPR	Female work participation rate (F.W.P.R.)
	F_LT	Adult Female literacy
Demand factors	POVERTY	Poverty (Percentage of population below poverty line (BPL))
	GIA	Gross Irrigated Area (GIA)
	NAW	Non-agricultural workers (NAW)
	CWPR	Child work participation rate (CWPR)
Social factors	SC_POP	Proportion of SC population
	ST_POP	Proportion of ST population

APPENDIX

REGRESSION : GROSS ENROLMENT RATIO AT THE PRIMARY LEVEL

REGRESSION -MODEL SUMMARY (GER AND ITS DETERMINANTS)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.543 ^a	.295	.272	8.9639
2	.638 ^b	.407	.366	8.3621
3	.695 ^c	.483	.427	7.9484
4	.761 ^d	.579	.517	7.2986
5	.823 ^e	.677	.615	6.5176
6	.843 ^f	.710	.641	6.2948

a. Predictors: (Constant), PS_ONEKM

b. Predictors: (Constant), PS_ONEKM, CWPR

c. Predictors: (Constant), PS_ONEKM, CWPR, URB

d. Predictors: (Constant), PS_ONEKM, CWPR, URB, ST_POP

e. Predictors: (Constant), PS_ONEKM, CWPR, URB, ST_POP, GIA

f. Predictors: (Constant), PS_ONEKM, CWPR, URB, ST_POP, GIA, F_LT

APPENDIX

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	63.096	11.169		5.649	.000
	PS_ONEKM	.501	.141	.543	3.544	.001
2	(Constant)	83.653	13.630		6.137	.000
	PS_ONEKM	.385	.141	.418	2.738	.010
	CWPR	-1.789	.765	-.357	-2.339	.026
3	(Constant)	91.757	13.560		6.767	.000
	PS_ONEKM	.409	.134	.443	3.045	.005
	CWPR	-2.405	.788	-.480	-3.052	.005
	URB	-.288	.142	-.306	-2.024	.053
4	(Constant)	89.996	12.472		7.216	.000
	PS_ONEKM	.471	.126	.511	3.746	.001
	CWPR	-2.033	.739	-.406	-2.751	.010
	URB	-.410	.140	-.435	-2.937	.007
	ST_POP	-.209	.084	-.353	-2.491	.019
5	(Constant)	79.960	11.699		6.835	.000
	PS_ONEKM	.501	.113	.544	4.440	.000
	CWPR	-1.730	.669	-.345	-2.588	.016
	URB	-.463	.126	-.492	-3.674	.001
	ST_POP	-.228	.075	-.385	-3.032	.005
	GIA	.208	.074	.323	2.803	.009
6	(Constant)	91.447	13.175		6.941	.000
	PS_ONEKM	.518	.109	.562	4.732	.000
	CWPR	-2.030	.670	-.405	-3.032	.006
	URB	-.373	.133	-.396	-2.808	.010
	ST_POP	-.263	.075	-.443	-3.481	.002
	GIA	.217	.072	.337	3.021	.006
	F_LT	-.295	.174	-.253	-1.695	.102

a. Dependent Variable: GER

APPENDIX

CORRELATION : GROSS ENROLMENT RATIO AT THE UPPER PRIMARY LEVEL

Correlations

		ER_UP	OVER_Y	PS_MS	PTR	SCR	FWPR	C_PO	T_POF	CWPR	S_ON_KM	NAW	URB	F_T	IN_T_S	F_LT	AVG_L_H	GIA
GER_UP	Pearson Correla	1	-.092	-.699*	-.356*	-.005	-.234	.260	-.131	-.576*	.594*	.059	.296	.191	-.670*	.611*	-.567*	.417*
	Sig. (2-tailed)		.616	.000	.045	.980	.197	.151	.475	.001	.000	.749	.100	.294	.000	.000	.001	.017
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
POVERT	Pearson Correla	-.092	1	.460*	-.387*	-.157	.248	-.711*	.499*	.195	-.054	-.158	-.117	.272	.045	-.075	-.200	-.145
	Sig. (2-tailed)	.616		.008	.029	.391	.171	.000	.004	.285	.769	.386	.522	.133	.807	.685	.271	.429
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
PS_MS	Pearson Correla	-.699*	.460*	1	-.161	-.231	.465*	-.585*	.485*	.549*	-.499*	-.163	-.502*	-.017	.507*	-.665*	.095	-.217
	Sig. (2-tailed)	.000	.008		.380	.204	.007	.000	.005	.001	.004	.374	.003	.927	.003	.000	.606	.233
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
PTR	Pearson Correla	-.356*	-.387*	-.161	1	.553*	.049	.340	-.430*	.081	-.113	-.057	-.144	-.532*	.286	-.049	.415*	-.173
	Sig. (2-tailed)	.045	.029	.380		.001	.789	.057	.014	.659	.538	.755	.431	.002	.112	.790	.018	.343
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
SCR	Pearson Correla	-.005	-.157	-.231	.553*	1	.134	.238	-.035	-.156	.241	-.145	-.042	-.517*	-.236	-.064	-.166	.095
	Sig. (2-tailed)	.980	.391	.204	.001		.466	.190	.848	.394	.183	.428	.820	.002	.193	.728	.363	.606
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
FWPR	Pearson Correla	-.234	.248	.465*	.049	.134	1	-.352*	.429*	.634*	-.020	-.791*	-.759*	-.337	.001	-.591*	-.168	-.254
	Sig. (2-tailed)	.197	.171	.007	.789	.466		.048	.014	.000	.912	.000	.000	.059	.998	.000	.357	.160
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
SC_POP	Pearson Correla	.260	-.711*	-.585*	.340	.238	-.352*	1	-.680*	-.278	.024	.100	.237	-.230	.038	.392*	.244	.428*
	Sig. (2-tailed)	.151	.000	.000	.057	.190	.048		.000	.124	.896	.587	.192	.206	.837	.027	.178	.014
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
ST_POP	Pearson Correla	-.131	.499*	.485*	-.430*	-.035	.429*	-.680*	1	.301	.036	-.317	-.414*	.064	-.155	-.458*	-.431*	-.033
	Sig. (2-tailed)	.475	.004	.005	.014	.848	.014	.000		.094	.843	.077	.018	.726	.397	.008	.014	.858
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
CWPR	Pearson Correla	-.576*	.195	.549*	.081	-.156	.634*	-.278	.301	1	-.350*	-.464*	-.431*	.080	.384*	-.506*	.196	-.197
	Sig. (2-tailed)	.001	.285	.001	.659	.394	.000	.124	.094		.049	.007	.014	.662	.030	.003	.282	.279
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
PS_ONE	Pearson Correla	.594*	-.054	-.499*	-.113	.241	-.020	.024	.036	-.350*	1	-.006	.224	.046	-.735*	.232	-.533*	.009
	Sig. (2-tailed)	.000	.769	.004	.538	.183	.912	.896	.843	.049		.972	.218	.804	.000	.202	.002	.963
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
NAW	Pearson Correla	.059	-.158	-.163	-.057	-.145	-.791*	.100	-.317	-.464*	-.006	1	.715*	.432*	-.012	.331	.008	.282
	Sig. (2-tailed)	.749	.386	.374	.755	.428	.000	.587	.077	.007	.972		.000	.013	.946	.065	.964	.118
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
URB	Pearson Correla	.296	-.117	-.502*	-.144	-.042	-.759*	.237	-.414*	-.431*	.224	.715*	1	.550*	-.239	.603*	.088	.192
	Sig. (2-tailed)	.100	.522	.003	.431	.820	.000	.192	.018	.014	.218	.000		.001	.188	.000	.630	.293
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
F_T	Pearson Correla	.191	.272	-.017	-.532*	-.517*	-.337	-.230	.064	.080	.046	.432*	.550*	1	-.027	.287	-.163	.229
	Sig. (2-tailed)	.294	.133	.927	.002	.002	.059	.206	.726	.662	.804	.013	.001		.884	.111	.374	.207
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
SIN_T_P	Pearson Correla	-.670*	.045	.507*	.286	-.236	.001	.038	-.155	.384*	-.735*	-.012	-.239	-.027	1	-.227	.662*	-.105
	Sig. (2-tailed)	.000	.807	.003	.112	.193	.998	.837	.397	.030	.000	.946	.188	.884		.213	.000	.568
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
F_LT	Pearson Correla	.611*	-.075	-.665*	-.049	-.064	-.591*	.392*	-.458*	-.506*	.232	.331	.603*	.287	-.227	1	.037	.183
	Sig. (2-tailed)	.000	.685	.000	.790	.728	.000	.027	.008	.003	.202	.065	.000	.111	.213		.841	.316
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
AVG_L_H	Pearson Correla	-.567*	-.200	.095	.415*	-.166	-.168	.244	-.431*	.196	-.533*	.008	.088	-.163	.662*	.037	1	-.447*
	Sig. (2-tailed)	.001	.271	.606	.018	.363	.357	.178	.014	.282	.002	.964	.630	.374	.000	.841		.010
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
GIA	Pearson Correla	.417*	-.145	-.217	-.173	.095	-.254	.428*	-.033	-.197	.009	.282	.192	.229	-.105	.183	-.447*	1
	Sig. (2-tailed)	.017	.429	.233	.343	.606	.160	.014	.858	.279	.963	.118	.293	.207	.568	.316	.010	
	N	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

REGRESSION : GROSS ENROLMENT RATIO AT THE UPPER PRIMARY LEVEL

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.699 ^a	.489	.472	8.24737
2	.861 ^b	.741	.724	5.96468
3	.907 ^c	.822	.803	5.03910
4	.926 ^d	.857	.836	4.59256

a. Predictors: (Constant), PS_MS

b. Predictors: (Constant), PS_MS, AVG_L_H

c. Predictors: (Constant), PS_MS, AVG_L_H, PTR

d. Predictors: (Constant), PS_MS, AVG_L_H, PTR, F_LT

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	81.052	4.202		19.289	.000
	PS_MS	-13.008	2.429	-.699	-5.355	.000
2	(Constant)	86.801	3.225		26.914	.000
	PS_MS	-12.116	1.765	-.651	-6.866	.000
	AVG_L_H	-1.713	.322	-.505	-5.325	.000
3	(Constant)	110.513	7.207		15.335	.000
	PS_MS	-13.315	1.529	-.716	-8.711	.000
	AVG_L_H	-1.243	.302	-.366	-4.113	.000
	PTR	-.585	.165	-.319	-3.554	.001
4	(Constant)	86.145	11.474		7.508	.000
	PS_MS	-9.709	1.969	-.522	-4.930	.000
	AVG_L_H	-1.434	.285	-.423	-5.028	.000
	PTR	-.462	.158	-.252	-2.931	.007
	F_LT	.336	.130	.267	2.590	.015

a. Dependent Variable: GER_UP

APPENDIX

CORRELATION : GROSS ENROLMENT RATIO AT THE ELEMENTARY LEVEL

Correlations

		L_GER	PS_MS	CWPR	GIA	S_ONE KM	IN_T_P S	F_LT	AVG_L_ H	C_POP
EL_GER	Pearson Correla	1	-.567*	-.560*	.350*	.622*	-.569*	.389*	-.496*	.383*
	Sig. (2-tailed)	.	.001	.001	.050	.000	.001	.028	.004	.030
	N	32	32	32	32	32	32	32	32	32
PS_MS	Pearson Correla	-.567*	1	.549*	-.217	-.499*	.507*	-.665*	.095	-.585*
	Sig. (2-tailed)	.001	.	.001	.233	.004	.003	.000	.606	.000
	N	32	32	32	32	32	32	32	32	32
CWPR	Pearson Correla	-.560*	.549*	1	-.197	-.350*	.384*	-.506*	.196	-.278
	Sig. (2-tailed)	.001	.001	.	.279	.049	.030	.003	.282	.124
	N	32	32	32	32	32	32	32	32	32
GIA	Pearson Correla	.350*	-.217	-.197	1	.009	-.105	.183	-.447*	.428*
	Sig. (2-tailed)	.050	.233	.279	.	.963	.568	.316	.010	.014
	N	32	32	32	32	32	32	32	32	32
PS_ONE	Pearson Correla	.622*	-.499*	-.350*	.009	1	-.735*	.232	-.533*	.024
	Sig. (2-tailed)	.000	.004	.049	.963	.	.000	.202	.002	.896
	N	32	32	32	32	32	32	32	32	32
SIN_T_P	Pearson Correla	-.569*	.507*	.384*	-.105	-.735*	1	-.227	.662*	.038
	Sig. (2-tailed)	.001	.003	.030	.568	.000	.	.213	.000	.837
	N	32	32	32	32	32	32	32	32	32
F_LT	Pearson Correla	.389*	-.665*	-.506*	.183	.232	-.227	1	.037	.392*
	Sig. (2-tailed)	.028	.000	.003	.316	.202	.213	.	.841	.027
	N	32	32	32	32	32	32	32	32	32
AVG_L_H	Pearson Correla	-.496*	.095	.196	-.447*	-.533*	.662*	.037	1	.244
	Sig. (2-tailed)	.004	.606	.282	.010	.002	.000	.841	.	.178
	N	32	32	32	32	32	32	32	32	32
SC_POP	Pearson Correla	.383*	-.585*	-.278	.428*	.024	.038	.392*	.244	1
	Sig. (2-tailed)	.030	.000	.124	.014	.896	.837	.027	.178	.
	N	32	32	32	32	32	32	32	32	32

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

APPENDIX

REGRESSION : GROSS ENROLMENT RATIO AT THE ELEMENTARY LEVEL

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.622 ^a	.386	.366	7.29295
2	.723 ^b	.522	.489	6.54651
3	.791 ^c	.626	.585	5.89777
4	.826 ^d	.682	.635	5.53680

a. Predictors: (Constant), PS_ONEKM

b. Predictors: (Constant), PS_ONEKM, SC_POP

c. Predictors: (Constant), PS_ONEKM, SC_POP, AVG_L_H

d. Predictors: (Constant), PS_ONEKM, SC_POP, AVG_L_H, CWPR

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	47.778	9.087		5.258	.000
	PS_ONEKM	.500	.115	.622	4.347	.000
2	(Constant)	38.062	8.832		4.309	.000
	PS_ONEKM	.492	.103	.613	4.772	.000
	SC_POP	.592	.206	.368	2.869	.008
3	(Constant)	53.301	9.662		5.517	.000
	PS_ONEKM	.320	.112	.398	2.860	.008
	SC_POP	.757	.195	.471	3.879	.001
	AVG_L_H	-1.092	.393	-.399	-2.780	.010
4	(Constant)	67.307	11.109		6.059	.000
	PS_ONEKM	.260	.108	.324	2.400	.024
	SC_POP	.628	.192	.391	3.267	.003
	AVG_L_H	-1.004	.371	-.367	-2.707	.012
	CWPR	-1.162	.532	-.266	-2.184	.038

a. Dependent Variable: EL_GER

APPENDIX

ENROLMENT SCENARIO IN RAJASTHAN AT THE PRIMARY LEVEL (AGE 6--11 YEARS)									
TOTAL CHILDREN, ENROLLED CHILDREN AND GROSS ENROLMENT RATIO									
YEAR 1993 & 2002									
S.No.	STATE/DISTRICTS	POP_1991	an_gr_rt	POP_1993	ENR_93	GER_93	POP_2002	ENR_02	GER_02
	RAJASTHAN	5948513	2.83	6285556	5059400	80.5	7802248	7846501	100.6
1	AJMER	211017	2.61	222032	209645	94.4	271600	280816	103.4
2	ALWAR	310980	3.02	329782	285516	86.6	414390	486911	117.5
3	BANSWARA	161636	2.98	171282	136093	79.5	214691	181940	84.7
4	BARMER	208217	3.68	223554	187610	83.9	292572	253089	86.5
5	BHARATPUR	218780	2.71	230616	155602	67.5	283878	339194	119.5
6	BHILWARA	192025	2.61	202064	132331	65.5	247240	244192	98.8
7	BIKANER	178825	3.82	192480	140074	72.8	253928	253595	99.9
8	BUNDI	100084	2.48	105048	90852	86.5	127387	138195	108.5
9	CHITTAURGARH	183990	2.15	191887	154339	80.4	227423	219860	96.7
10	CHURU	221981	2.46	232902	171040	73.4	282049	269028	95.4
11	DHOLPUR	100453	3.11	106707	84494	79.2	134851	161370	119.7
12	DUNGARPUR	120550	2.66	126958	115565	91.0	155796	142262	91.3
13	GANGANAGAR	364559	2.60	383549	297634	77.6	469003	458763	97.8
14	JAIPUR	644980	3.91	695420	613782	88.3	922402	831627	90.2
15	JAISALMER	49210	4.75	53880	37938	70.4	74895	67933	90.7
16	JALOR	166933	2.68	175874	74941	42.6	216108	199824	92.5
17	JHALAWAR	121556	2.33	127230	103741	81.5	152764	181243	118.6
18	JHUNJHUNUN	221652	2.09	230917	204438	88.5	272610	292450	107.3
19	JODHPUR	300672	3.38	320979	248103	77.3	412363	386886	93.8
20	KOTA	261164	2.76	275575	260193	94.4	340426	370269	108.8
21	NAGAUR	296849	2.93	314262	228448	72.7	392621	411193	104.7
22	PALI	198421	2.24	207306	187006	90.2	247290	282731	114.3
23	SAWAI MADHOPUR	264416	1.83	274071	184937	67.5	317516	346107	109.0
24	SIKAR	257670	2.41	270095	231257	85.6	326007	329591	101.1
25	SIROHI	86100	3.01	91280	111788	122.5	114589	111882	97.6
26	TONK	129042	2.42	135298	103237	76.3	163450	170692	104.4
27	UDAIPUR	376851	2.52	395872	308796	78.0	481468	434858	90.3
	POP =Children Population in the age-group 6--11 years								
	an_gr_rt = Average annual population growth rate between 1991 and 2001								
	ENR = Number of children enrolled at the primary level (class 1-5)								
	GER = Gross Enrolment Ratio at the primary level (class 1-5)								

APPENDIX

ENROLMENT SCENARIO IN RAJASTHAN AT THE PRIMARY LEVEL (AGE 6--11 YEARS)									
TOTAL GIRLS, ENROLLED GIRLS AND GROSS ENROLMENT RATIO									
YEAR 1993 & 2002									
S.No.	STATE/DISTRICTS	POP_ 1991	an gr r	POP_ 1993	ENR_ 93	GER_ 93	POP_ 2002	ENR_ 02	GER_ 02
	RAJASTHAN	2826518	2.83	2986669	1707495	57.2	3707346	3536149	95.4
1	AJMER	101070	2.61	106346	76649	72.1	130087	122569	94.2
2	ALWAR	147190	3.02	156089	100279	64.2	196135	222801	113.6
3	BANSWARA	78510	2.98	83195	39551	47.5	104280	80068	76.8
4	BARMER	98359	3.68	105604	62815	59.5	138207	105659	76.4
5	BHARATPUR	99160	2.71	104525	46780	44.8	128665	154937	120.4
6	BHILWARA	93840	2.61	98746	45383	46.0	120823	109605	90.7
7	BIKANER	86030	3.82	92599	47701	51.5	122161	112044	91.7
8	BUNDI	46850	2.48	49174	28057	57.1	59631	62998	105.6
9	CHITTAURGARH	91440	2.15	95365	50850	53.3	113025	100004	88.5
10	CHURU	107917	2.46	113227	54871	48.5	137119	125113	91.2
11	DHOLPUR	42580	3.11	45231	22931	50.7	57161	71238	124.6
12	DUNGARPUR	60150	2.66	63348	43172	68.2	77737	63268	81.4
13	GANGANAGAR	174880	2.60	183989	119036	64.7	224982	210550	93.6
14	JAIPUR	306160	3.91	330103	215527	65.3	437847	382630	87.4
15	JAISALMER	22920	4.75	25095	10586	42.2	34883	27578	79.1
16	JALOR	79420	2.68	83674	24453	29.2	102816	83101	80.8
17	JHALAWAR	56680	2.33	59326	33748	56.9	71232	84289	118.3
18	JHUNJHUNUN	104840	2.09	109222	83017	76.0	128943	136320	105.7
19	JODHPUR	141960	3.38	151548	80394	53.0	194694	171591	88.1
20	KOTA	122791	2.76	129567	97380	75.2	160058	173900	108.6
21	NAGAUR	141240	2.93	149525	70967	47.5	186808	185664	99.4
22	PALI	93640	2.24	97833	59212	60.5	116703	126048	108.0
23	SAWAI MADHOPUR	119706	1.83	124077	48758	39.3	143745	153182	106.6
24	SIKAR	121810	2.41	127684	87332	68.4	154115	151207	98.1
25	SIROHI	40880	3.01	43339	24394	56.3	54406	46457	85.4
26	TONK	62045	2.42	65053	29319	45.1	78589	77475	98.6
27	UDAIPUR	184450	2.52	193760	104333	53.8	235655	195853	83.1
	POP =Girls' Population in the age-group 6--11 years								
	an gr r = Average annual population growth rate between 1991 and 2001								
	ENR = Number of girls enrolled at the primary level (class 1--5)								
	GER = Gross Enrolment Ratio at the primary level (class 1--5)								

APPENDIX

ENROLMENT SCENARIO IN RAJASTHAN AT THE PRIMARY LEVEL (AGE 6--11 YEARS)									
TOTAL BOYS, ENROLLED BOYS AND GROSS ENROLMENT RATIO									
YEAR 1993 & 2002									
S.No.	STATE/DISTRICTS	POP_1991	an_gr_rt	POP_1993	ENR_93	GER_93	POP_2002	ENR_02	GER_02
	RAJASTHAN	3121995	2.83	3298887	3351905	101.6	4094902	4310352	105.3
1	AJMER	109947	2.61	115686	132996	115.0	141513	158247	111.8
2	ALWAR	163790	3.02	173693	185237	106.6	218255	264110	121.0
3	BANSWARA	83126	2.98	88087	96542	109.6	110411	101872	92.3
4	BARMER	109858	3.68	117950	124795	105.8	154365	147430	95.5
5	BHARATPUR	119620	2.71	126091	108822	86.3	155213	184257	118.7
6	BHILWARA	98185	2.61	103318	86948	84.2	126417	134587	106.5
7	BIKANER	92795	3.82	99881	92373	92.5	131767	141551	107.4
8	BUNDI	53234	2.48	55874	62795	112.4	67756	75197	111.0
9	CHITTAURGARH	92550	2.15	96522	103489	107.2	114397	119856	104.8
10	CHURU	114064	2.46	119676	116169	97.1	144930	143915	99.3
11	DHOLPUR	57873	3.11	61476	61563	100.1	77690	90132	116.0
12	DUNGARPUR	60400	2.66	63611	72393	113.8	78060	78994	101.2
13	GANGANAGAR	189679	2.60	199559	178598	89.5	244021	248213	101.7
14	JAIPUR	338820	3.91	365317	398255	109.0	484555	448997	92.7
15	JAISALMER	26290	4.75	28785	27352	95.0	40012	40355	100.9
16	JALOR	87513	2.68	92200	50488	54.8	113293	116723	103.0
17	JHALAWAR	64876	2.33	67904	69993	103.1	81532	96954	118.9
18	JHUNJHUNUN	116812	2.09	121695	121421	99.8	143667	156130	108.7
19	JODHPUR	158712	3.38	169431	167709	99.0	217669	215295	98.9
20	KOTA	138373	2.76	146009	162813	111.5	180369	196369	108.9
21	NAGAUER	155609	2.93	164737	157481	95.6	205813	225529	109.6
22	PALI	104781	2.24	109473	127794	116.7	130588	156683	120.0
23	SAWAI MADHOPUR	144710	1.83	149994	136179	90.8	173771	192925	111.0
24	SIKAR	135860	2.41	142411	143925	101.1	171891	178384	103.8
25	SIROHI	45220	3.01	47940	87394	182.3	60182	65425	108.7
26	TONK	66997	2.42	70245	73918	105.2	84861	93217	109.8
27	UDAIPUR	192401	2.52	202112	204463	101.2	245813	239005	97.2
		POP =Boys' Population in the age-group 6--11 years							
		an_gr_rt = Average annual population growth rate between 1991 and 2001							
		ENR = Number of boys enrolled at the primary level (class 1--5)							
		GER = Gross Enrolment Ratio at the primary level (class 1--5)							

APPENDIX

ENROLMENT SCENARIO IN RAJASTHAN AT THE UPPER PRIMARY LEVEL									
(AGE 11--14 YEARS)									
TOTAL GIRLS, ENROLLED GIRLS AND GROSS ENROLMENT RATIO									
YEAR 1993 & 2002									
S.No.	STATE/DISTRICTS	POP_1991	an_gr_rt	POP_1993	ENR_93	GER_93	POP_2002	ENR_02	GER_02
	RAJASTHAN	1463779	2.83	1546717	390299	25.2	1919936	867004	45.2
1	AJMER	54220	2.61	57050	21065	36.9	69787	34757	49.8
2	ALWAR	73464	3.02	77906	25675	33.0	97893	59697	61.0
3	BANSWARA	41350	2.98	43818	7352	16.8	54923	20331	37.0
4	BARMER	51985	3.68	55814	4503	8.1	73046	12254	16.8
5	BHARATPUR	51310	2.71	54086	15306	28.3	66577	34188	51.4
6	BHILWARA	47834	2.61	50335	11730	23.3	61588	23767	38.6
7	BIKANER	43100	3.82	46391	12081	26.0	61201	22901	37.4
8	BUNDI	24020	2.48	25211	17950	71.2	30573	13890	45.4
9	CHITTAURGARH	46563	2.15	48561	11096	22.8	57555	23501	40.8
10	CHURU	54940	2.46	57643	11984	20.8	69807	29345	42.0
11	DHOLPUR	22847	3.11	24269	4313	17.8	30670	13172	42.9
12	DUNGARPUR	30631	2.66	32259	7435	23.0	39587	17242	43.6
13	GANGANAGAR	92527	2.60	97347	28406	29.2	119035	68044	57.2
14	JAIPUR	147776	3.91	159333	54395	34.1	211338	106441	50.4
15	JAISALMER	11020	4.75	12066	1444	12.0	16772	2988	17.8
16	JALOR	42890	2.68	45187	4811	10.6	55525	10590	19.1
17	JHALAWAR	31410	2.33	32876	5954	18.1	39474	14810	37.5
18	JHUNJHUNUN	58186	2.09	60618	26639	43.9	71563	54486	76.1
19	JODHPUR	74268	3.38	79284	20068	25.3	101856	35498	34.9
20	KOTA	65230	2.76	68829	10870	15.8	85027	50715	59.6
21	NAGAU	71020	2.93	75186	11366	15.1	93933	35202	37.5
22	PALI	52729	2.24	55090	10987	19.9	65716	24958	38.0
23	SAWAI MADHOPUR	60619	1.83	62832	12146	19.3	72792	31421	43.2
24	SIKAR	62654	2.41	65675	18273	27.8	79270	54176	68.3
25	SIROHI	23116	3.01	24507	3177	13.0	30765	9186	29.9
26	TONK	31770	2.42	33310	6068	18.2	40241	14297	35.5
27	UDAIPUR	96300	2.52	101161	25205	24.9	123034	49147	39.9
	POP =Girls' Population in the age-group 11--14 years								
	an_gr_rt = Average annual population growth rate between 1991 and 2001								
	ENR = Number of girls enrolled at the upper primary level (class 6--8)								
	GER = Gross Enrolment Ratio at the upper primary level (class 6--8)								

ENROLMENT SCENARIO IN RAJASTHAN AT THE UPPER PRIMARY LEVEL									
(AGE 11-14 YEARS)									
TOTAL BOYS, ENROLLED BOYS AND GROSS ENROLMENT RATIO									
YEAR 1993 & 2002									
S.No.	STATE/DISTRICTS	POP 1991	an_gr_rt	POP 1993	ENR_93	GER_93	POP 2002	ENR_02	GER_02
	RAJASTHAN	1676764	2.83	1771769	1146048	64.7	2199294	1646341	74.9
1	AJMER	63380	2.61	66688	47128	70.7	81576	64898	79.6
2	ALWAR	90270	3.02	95728	74626	78.0	120287	106866	88.8
3	BANSWARA	41841	2.98	44338	18949	42.7	55575	39465	71.0
4	BARMER	58901	3.68	63240	29590	46.8	82764	40992	49.5
5	BHARATPUR	68881	2.71	72607	54340	74.8	89377	68566	76.7
6	BHILWARA	53220	2.61	56002	33124	59.1	68523	48703	71.1
7	BIKANER	46728	3.82	50296	26055	51.8	66353	43879	66.1
8	BUNDI	28470	2.48	29882	34874	116.7	36237	28383	78.3
9	CHITTAURGARH	52680	2.15	54941	32554	59.3	65116	45820	70.4
10	CHURU	61430	2.46	64452	38788	60.2	78053	50743	65.0
11	DHOLPUR	32698	3.11	34734	20557	59.2	43895	30447	69.4
12	DUNGARPUR	32615	2.66	34349	17411	50.7	42151	27578	65.4
13	GANGANAGAR	101080	2.60	106345	61058	57.4	130039	96405	74.1
14	JAIPUR	170054	3.91	183353	142630	77.8	243199	189902	78.1
15	JAISALMER	14250	4.75	15602	8105	51.9	21688	10290	47.4
16	JALOR	47977	2.68	50547	17990	35.6	62110	38621	62.2
17	JHALAWAR	35710	2.33	37377	18925	50.6	44878	33038	73.6
18	JHUNJHUNUN	62386	2.09	64994	58305	89.7	76729	73136	95.3
19	JODHPUR	83708	3.38	89362	55998	62.7	114803	77100	67.2
20	KOTA	77770	2.76	82061	36891	45.0	101373	83750	82.6
21	NAGOUR	80671	2.93	85403	55491	65.0	106698	80761	75.7
22	PALI	59434	2.24	62095	43222	69.6	74072	58308	78.7
23	SAWAI MADHOPU	78360	1.83	81221	49956	61.5	94096	79283	84.3
24	SIKAR	72122	2.41	75600	58067	76.8	91249	82431	90.3
25	SIROHI	24887	3.01	26384	25758	97.6	33122	24109	72.8
26	TONK	35891	2.42	37631	24602	65.4	45461	37044	81.5
27	UDAIPUR	101350	2.52	106466	61054	57.3	129486	85823	66.3
	POP =Boys' Population in the age-group 11-14 years								
	an_gr_rt = Average annual population growth rate between 1991 and 2001								
	ENR = Number of boys enrolled at the upper primary level (class 6-8)								
	GER = Gross Enrolment Ratio at the upper primary level (class 6-8)								

APPENDIX

GROSS PRIMARY ENROLMENT RATIOS IN RAJASTHAN										
YEAR 1993 & 2002										
RURAL AREAS										
TOTAL			GIRLS				BOYS			
S.No.	STATE/DISTRICTS	GER_9	GER_02	GROWTH	GER_93	GER_02	GROWTH	GER_9	GER_0	GROWTH
	RAJASTHAN	75.9	102.1	34.5	49.0	96.9	97.9	100.3	106.9	6.6
1	AJMER	85.7	105	22.5	52.5	92.4	76.0	116.1	116.6	0.4
2	ALWAR	82.6	117.8	42.6	58.9	114.8	94.8	103.8	120.4	16.0
3	BANSWARA	79.9	84.1	5.3	54.2	75.8	39.8	104.1	91.9	-11.8
4	BARMER	58.0	83.7	44.3	33.8	73.5	117.5	79.6	92.8	16.6
5	BHARATPUR	78.7	121.3	54.2	55.4	124.3	124.4	97.7	118.8	21.6
6	BHILWARA	72.4	100.3	38.5	39.0	90.7	132.5	104.8	109.5	4.5
7	BIKANER	56.8	98	72.5	31.3	87.6	179.7	80.7	107.8	33.6
8	BUNDI	79.8	110.4	38.3	47.3	108.5	129.5	107.8	112	3.9
9	CHITTAURGARH	76.4	97.1	27.1	46.0	89	93.6	106.4	105.1	-1.2
10	CHURU	72.1	96.2	33.5	43.6	93.4	114.4	99.0	98.8	-0.2
11	DHOLPUR	77.9	120.9	55.2	46.2	129.5	180.2	100.6	115	14.4
12	DUNGARPUR	89.9	90.5	0.6	66.1	80.6	21.9	113.7	100.3	-11.7
13	GANGANAGAR	69.8	96.7	38.6	56.0	93.7	67.3	82.4	99.4	20.6
14	JAIPUR	83.1	104	25.2	51.1	100.7	97.3	112.1	107	-4.5
15	JAISALMER	63.2	88.2	39.6	33.0	76.6	132.0	89.2	98.2	10.1
16	JALOR	62.2	91.6	47.3	26.4	79.1	199.9	94.9	103	8.5
17	JHALAWAR	75.4	116.3	54.2	48.6	116.9	140.5	98.8	116	17.4
18	JHUNJHUNUN	89.2	108.8	22.0	77.3	108.5	40.5	100.0	109.2	9.2
19	JODHPUR	62.4	90.1	44.4	30.8	82.2	167.3	91.0	97.3	6.9
20	KOTA	88.2	112.3	27.3	62.8	113.3	80.4	110.6	111.2	0.5
21	NAGAU	73.7	108.7	47.6	46.0	103.3	124.7	98.9	113.5	14.8
22	PALI	90.1	117.4	30.3	55.6	110.5	98.9	121.0	123.5	2.1
23	SAWAI MADHOPUR	64.9	107.7	66.0	34.0	107.2	214.8	90.0	108.1	20.1
24	SIKAR	89.2	104	16.6	71.1	103.1	44.9	105.4	104.7	-0.6
25	SIROHI	73.3	94.4	28.9	45.1	81.7	81.0	98.9	105.9	7.1
26	TONK	73.1	104.2	42.5	37.1	98.1	164.7	106.5	109.9	3.2
27	UDAIPUR	73.7	91.6	24.4	46.5	83.7	79.9	99.8	99.3	-0.5
	GER = Gross Enrolment Ratio									
	GR_RATE = Growth rate in Gross Enrolment Ratio between 1993 and 2002									

APPENDIX

GROSS UPPER PRIMARY ENROLMENT RATIOS IN RAJASTHAN										
YEAR 1993 & 2002										
RURAL AREAS										
		TOTAL				GIRLS				BOYS
S.No	STATE/DISTRICTS	GER_93	GER_02	GROWTH	GER_93	GER_02	GROWTH	GER_9	GER_02	GROWTH
	RAJASTHAN	38.6	56	45.2	15.0	38.3	155.0	59.0	71.4	21.1
1	AJMER	37.9	52.9	39.7	13.1	29.3	123.6	58.7	72.8	24.0
2	ALWAR	52.5	71.9	36.8	26.6	55.7	109.6	73.5	85	15.6
3	BANSWARA	25.5	51	100.0	12.4	33.3	169.0	38.4	68.4	78.2
4	BARMER	24.5	30.8	25.7	4.3	13	199.9	42.4	46.6	10.0
5	BHARATPUR	48.5	61	25.8	19.3	46.2	139.6	69.6	71.6	2.9
6	BHILWARA	34.7	49.1	41.6	13.9	28.8	107.5	53.2	67.2	26.3
7	BIKANER	23.2	40.1	72.9	6.8	22	223.1	38.8	57.4	48.0
8	BUNDI	33.7	56.5	67.6	11.5	36.3	215.0	53.1	74.2	39.8
9	CHITTAURGARH	33.6	50.7	50.8	12.9	33.2	158.1	51.9	66.1	27.4
10	CHURU	37.7	51.2	35.8	14.2	38.9	173.6	58.5	62.1	6.2
11	DHOLPUR	37.4	53.9	44.1	10.9	37.2	239.9	55.3	65.2	17.9
12	DUNGARPUR	33.6	52.8	57.3	19.2	40.9	113.6	47.1	63.9	35.8
13	GANGANAGAR	33.0	58.5	77.4	17.4	48.9	181.1	47.4	67.4	42.2
14	JAIPUR	49.4	72.9	47.6	16.5	52	215.1	77.4	90.8	17.4
15	JAISALMER	27.5	28.3	3.0	4.2	10.6	150.4	45.4	42	-7.5
16	JALOR	27.6	39.3	42.4	4.7	16.6	252.0	48.1	59.6	23.8
17	JHALAWAR	26.3	49.6	88.7	8.9	29.9	235.0	41.4	66.8	61.5
18	JHUNJHUNUN	65.2	85.8	31.5	41.8	78.1	87.0	87.2	93.1	6.7
19	JODHPUR	31.2	39.9	27.8	5.4	18.2	238.3	53.6	58.7	9.5
20	KOTA	37.4	60.8	62.7	17.1	44.5	160.7	54.1	74.3	37.3
21	NAGOUR	38.5	56.5	46.9	10.8	35.7	229.4	62.8	75	19.4
22	PALI	40.9	54.6	33.5	13.1	31.7	141.6	65.4	74.9	14.5
23	SAWAI MADHOPUR	38.3	61	59.3	12.5	36.8	193.8	57.6	79.1	37.3
24	SIKAR	53.2	77.3	45.3	24.3	66.8	175.1	77.7	86.2	11.0
25	SIROHI	35.3	45.3	28.3	9.8	22.5	130.0	59.1	66.6	12.6
26	TONK	39.6	56	41.3	10.9	27.5	151.6	64.3	80.5	25.2
27	UDAIPUR	33.6	30.6	-9.0	15.2	14.5	-4.9	51.1	45.9	-10.2
GER = Gross Enrolment Ratio										
GR_RATE = Growth rate in Gross Enrolment Ratio between 1993 and 2002										

APPENDIX

GROSS PRIMARY ENROLMENT RATIOS IN RAJASTHAN										
YEAR 1993 & 2002										
URBAN AREAS										
		TOTAL				GIRLS				BOYS
S.No.	STATE/DISTRICTS	GER_9	GER_0	GROWTH	GER_93	GER_0	GROWTH	GER_9	GER_02	GROWTH
	RAJASTHAN	97.0	95.3	-1.8	86.7	90.3	4.2	106.4	99.8	-6.3
1	AJMER	109.0	104.4	-4.3	103.6	100.6	-2.9	114.0	107.8	-5.4
2	ALWAR	116.8	128.7	10.1	102.7	117.3	14.2	130.0	139.2	7.1
3	BANSWARA	104.9	87.5	-16.5	96.7	84.2	-12.9	112.8	90.7	-19.6
4	BARMER	86.0	94.8	10.2	71.1	88.6	24.7	99.7	100.4	0.8
5	BHARATPUR	91.7	104.3	13.7	78.7	97.2	23.5	103.3	110.5	7.0
6	BHILWARA	94.7	91.2	-3.7	81.2	89.0	9.6	107.0	93.2	-12.9
7	BIKANER	89.3	90.5	1.3	81.7	88.0	7.7	96.3	92.8	-3.6
8	BUNDI	120.2	104.3	-13.2	102.2	97.2	-4.9	138.2	111.5	-19.3
9	CHITTAURGARH	102.5	96.9	-5.4	92.6	88.1	-4.8	112.6	105.8	-6.0
10	CHURU	75.8	85.9	13.2	60.7	78.4	29.3	90.2	92.9	3.0
11	DHOLPUR	83.9	106.2	26.6	69.3	97.8	41.3	96.4	113.4	17.6
12	DUNGARPUR	102.3	88.1	-13.9	92.7	78.9	-14.9	111.9	97.3	-13.0
13	GANGANAGAR	108.7	102.7	-5.5	99.0	93.8	-5.3	117.6	110.9	-5.7
14	JAIPUR	97.0	97.7	0.7	89.3	93.5	4.7	104.1	101.6	-2.4
15	JAISALMER	122.6	118.5	-3.4	104.6	104.9	0.3	139.5	131.1	-6.0
16	JALOR	84.1	117.6	39.9	70.2	118.5	68.7	95.8	116.9	22.1
17	JHALAWAR	111.9	109.3	-2.3	99.8	104.9	5.1	122.4	113.2	-7.5
18	JHUNJHUNUN	86.5	104.4	20.7	71.6	97.7	36.6	99.4	110.2	10.8
19	JODHPUR	108.8	96.8	-11.0	101.9	96.6	-5.2	114.8	97.0	-15.5
20	KOTA	105.4	103.2	-2.1	96.8	100.7	4.0	113.2	105.4	-6.9
21	NAGOUR	68.5	90.0	31.4	55.9	84.4	51.0	79.7	95.0	19.2
22	PALI	88.8	94.6	6.5	76.9	90.6	17.8	99.5	98.2	-1.3
23	SAWAI MADHOPUR	82.0	115.8	41.3	67.0	103.2	54.1	95.6	127.4	33.2
24	SIKAR	71.5	87.1	21.7	57.7	76.4	32.3	84.1	96.8	15.2
25	SIROHI	123.9	111.4	-10.1	111.5	102.0	-8.5	134.6	119.5	-11.2
26	TONK	90.9	112.9	24.3	79.3	107.9	36.0	101.5	117.6	15.8
27	UDAIPUR	105.3	102.2	-2.9	96.8	97.5	0.7	113.2	106.6	-5.9
GER = Gross Enrolment Ratio										
GR RATE = Growth rate in Gross Enrolment Ratio between 1993 and 2002										

APPENDIX

GROSS UPPER PRIMARY ENROLMENT RATIOS IN RAJASTHAN										
YEAR 1993 & 2002										
URBAN AREAS										
TOTAL			GIRLS			BOYS				
S.No.	STATE/DISTRICTS	GER 93	GER 02	GROWTH	GER 93	GER 02	GROWTH	GER 93	GER 02	GROWTH
	RAJASTHAN	73.2	78.0	6.6	60.1	68.2	13.5	84.9	86.8	2.2
1	AJMER	81.7	88.9	8.8	72.5	83.5	15.3	89.7	93.5	4.2
2	ALWAR	95.0	116.6	22.7	76.3	104.4	36.8	111.1	127.0	14.3
3	BANSWARA	84.1	90.4	7.4	70.1	80.4	14.7	99.1	101.0	1.9
4	BARMER	67.8	61.6	-9.2	45.0	53.3	18.6	87.5	68.6	-21.6
5	BHARATPUR	80.7	80.7	0.0	61.6	66.3	7.7	96.8	92.8	-4.2
6	BHILWARA	71.8	78.9	9.9	59.8	73.2	22.4	82.8	84.2	1.6
7	BIKANER	65.9	68.3	3.7	59.3	61.8	4.3	71.6	74.0	3.3
8	BUNDI	81.9	96.9	18.3	75.1	94.8	26.2	86.8	98.4	13.3
9	CHITTAURGARH	85.5	87.0	1.8	72.6	79.4	9.4	97.1	93.9	-3.3
10	CHURU	51.1	57.7	12.7	37.5	46.8	24.8	63.7	67.7	6.2
11	DHOLPUR	62.6	73.1	16.7	44.9	60.7	35.2	77.0	83.1	7.9
12	DUNGARPUR	80.9	69.5	-14.2	68.0	65.9	-3.1	93.7	73.0	-22.1
13	GANGANAGAR	87.0	93.5	7.6	77.1	88.5	14.7	95.5	97.9	2.6
14	JAIPUR	69.6	80.7	16.0	59.7	73.7	23.4	78.5	87.1	10.9
15	JAISALMER	75.2	76.7	1.9	55.6	64.0	15.0	90.7	86.7	-4.5
16	JALOR	68.5	86.3	26.0	41.4	60.8	46.8	91.4	107.9	18.0
17	JHALAWAR	77.5	79.6	2.7	59.5	64.6	8.7	94.3	93.5	-0.8
18	JHUNJHUNUN	76.8	89.5	16.6	52.3	71.2	36.3	99.2	106.2	7.1
19	JODHPUR	74.2	75.5	1.8	65.8	68.1	3.5	81.9	82.5	0.6
20	KOTA	24.5	91.0	271.7	21.1	83.9	297.3	27.4	97.1	254.6
21	NAGPUR	59.6	67.5	13.4	39.0	49.2	26.2	77.6	83.6	7.7
22	PALI	65.7	72.4	10.2	45.0	57.6	27.9	84.5	86.0	1.7
23	SAWAI MADHOPUR	70.4	93.6	32.9	53.6	71.3	33.0	86.0	114.3	32.9
24	SIKAR	56.7	87.7	54.6	39.8	71.4	79.4	72.9	103.2	41.6
25	SIROHI	88.9	85.2	-4.2	66.1	66.8	1.0	109.6	101.9	-7.0
26	TONK	57.8	78.5	36.0	44.5	65.9	48.0	71.0	91.1	28.4
27	UDAIPUR	81.8	88.5	8.3	73.3	81.5	11.3	89.8	95.1	5.9
	GER = Gross Enrolment Ratio									
	GR RATE = Growth rate in Gross Enrolment Ratio between 1993 and 2002									

APPENDIX

CHILDREN NOT ENROLLED AT THE PRIMARY LEVEL (AGE 6-11 YEARS)							
RAJASTHAN							
YEAR 1993 & 2002							
		TOTAL	GIRLS		BOYS		
S.No.	STATE/DISTRICTS	NT_ENR_93	NT_ENR_02	NT_ENR_93	NT_ENR_02	NT_ENR_93	NT_ENR_02
	RAJASTHAN	1226156	-44253	1279174	171197	-53018	-215450
1	AJMER	12387	-9216	29697	7518	-17310	-16734
2	ALWAR	44266	-72521	55810	-26666	-11544	-45855
3	BANSWARA	35189	32751	43644	24212	-8455	8539
4	BARMER	35944	39483	42789	32548	-6845	6935
5	BHARATPUR	75014	-55316	57745	-26272	17269	-29044
6	BHILWARA	69733	3048	53363	11218	16370	-8170
7	BIKANER	52406	333	44898	10117	7508	-9784
8	BUNDI	14196	-10808	21117	-3367	-6921	-7441
9	CHITTAURGARH	37548	7563	44515	13021	-6967	-5459
10	CHURU	61862	13021	58356	12006	3507	1015
11	DHOLPUR	22213	-26519	22300	-14077	-87	-12442
12	DUNGARPUR	11393	13534	20176	14469	-8782	-934
13	GANGANAGAR	85915	10240	64953	14432	20961	-4192
14	JAIPUR	81638	90775	114576	55217	-32938	35558
15	JAISALMER	15942	6962	14509	7305	1433	-343
16	JALOR	100933	16284	59221	19715	41712	-3430
17	JHALAWAR	23489	-28479	25578	-13057	-2089	-15422
18	JHUNJHUNUN	26479	-19840	26205	-7377	274	-12463
19	JODHPUR	72876	25477	71154	23103	1722	2374
20	KOTA	15382	-29843	32187	-13842	-16804	-16000
21	NAGAU	85814	-18572	78558	1144	7256	-19716
22	PALI	20300	-35441	38621	-9345	-18321	-26095
23	SAWAI MADHOPUR	89134	-28591	75319	-9437	13815	-19154
24	SIKAR	38838	-3584	40352	2908	-1514	-6493
25	SIROHI	-20508	2707	18945	7949	-39454	-5243
26	TONK	32061	-7242	35734	1114	-3673	-8356
27	UDAIPUR	87076	46610	89427	39802	-2351	6808

APPENDIX

CHILDREN NOT ENROLLED AT THE UPPER PRIMARY LEVEL (AGE 11--14 YEARS)							
RAJASTHAN							
YEAR 1993 & 2002							
		TOTAL		GIRLS		BOYS	
S.No.	STATE/DISTRICTS	NT_ENR_93	NT_ENR_02	NT_ENR_93	NT_ENR_02	NT_ENR_93	NT_ENR_02
	RAJASTHAN	1782139	1605885	1156418	1052932	625721	552953
1	AJMER	55546	51708	35985	35030	19560	16678
2	ALWAR	73332	51617	52231	38196	21102	13421
3	BANSWARA	61855	50702	36466	34592	25389	16110
4	BARMER	84961	102563	51311	60792	33650	41772
5	BHARATPUR	57047	53200	38780	32389	18267	20811
6	BHILWARA	61483	57641	38605	37821	22878	19820
7	BIKANER	58551	60774	34310	38300	24241	22474
8	BUNDI	2270	24536	7261	16683	-4992	7854
9	CHITTAURGARH	59853	53349	37465	34054	22387	19296
10	CHURU	71323	67772	45659	40462	25664	27310
11	DHOLPUR	34133	30946	19956	17498	14177	13448
12	DUNGARPUR	41762	36918	24824	22345	16938	14573
13	GANGANAGAR	114228	84625	68941	50991	45287	33634
14	JAIPUR	145661	158194	104938	104897	40723	53297
15	JAISALMER	18119	25182	10622	13784	7497	11398
16	JALOR	72933	68424	40376	44935	32557	23489
17	JHALAWAR	45374	36504	26922	24664	18452	11840
18	JHUNJHUNUN	40668	20670	33979	17077	6689	3593
19	JODHPUR	92580	104061	59216	66358	33364	37703
20	KOTA	103130	51935	57959	34312	45170	17623
21	NAGOUR	93732	84668	63820	58731	29912	25937
22	PALI	62977	56522	44103	40758	18873	15764
23	SAWAI MADHOPUR	81951	56185	50686	41371	31265	14813
24	SIKAR	64935	33913	47402	25094	17533	8818
25	SIROHI	21956	30591	21330	21579	626	9013
26	TONK	40271	34361	27242	25944	13029	8417
27	UDAIPUR	121367	117549	75956	73887	45412	43663

