Educational Attainment in India: Trends, Patterns and Policy Issues

Mukherjee, Dipa

Dept of Economics, Narasinha Dutt College

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Abstract

Education is the basic requirement and the 'Fundamental Right' of the citizens of a nation. While Higher Education is important, the Elementary Education system serves as the base over which the Super-structure of the whole education system is built up. This paper tries to analyse the trends, patterns and interacting factors affecting the quantitative and qualitative aspects of School Education System in India in recent years. It is observed that complete Literacy has not been achieved and this has far reaching socio-economic impacts. Enrolments in schools have improved substantially in recent years but the Retention rates are poor, and only a fraction of enrolled students completes even the Primary classes. Completion of Middle and Secondary levels are still lower. Substantial Gender-bias in both access to, and completion of education is a major cause of concern. Wide regional variation exists even within this sub-standard performance of the Basic Education system. While few states have performed moderately, others have done abysmally, and continue to do so. Factors like poverty, presence of a wide child-labour market, absence of assured employment after schooling, and infrastructural problems are identified as responsible for the ills plaguing the elementary education system in India. Providing incentives for attending schools, making the schooling process attractive to the children, streamlining the middle and high school curriculum to make it more vocational and job-oriented, and providing better infrastructure for the schools are some of the policies likely to improve the scenario.

Key Words: Education, Elementary Education, Gender-Gap, Regional Pattern.
JEL Classification: H52, I20, I21, I22, I28, P36.

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Author can be reached at medipa@rediffmail.com.

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I. INTRODUCTION

Education is the basic requirement and the 'Fundamental Right' of the citizens of a nation. While Higher Education is important in building up a Quality Human Resource Base for the nation, the Basic or Elementary Education system holds much more significance. In fact, since the inputs of the Higher Education system are nothing but the outputs of the Elementary Education system, the later serves as the base over which the Super-structure of the whole education system is built up. Attainment of basic education is important both due to its impact on the living standards of the people as also in augmenting their capabilities. Possession of reading and writing skills empower an individual to participate in modern economic processes, and transform his embodied capital into higher earning and better living. The present market based global village puts up a barrier in front of those who 'cannot read or write or count, and cannot follow written instructions' (Sen, 1998). More than five decades ago, the Constitution of India committed that *"the State shall endeavour to provide, within a period of 10 years from the commencement of the constitution, free and compulsory education for all children until they complete the age of fourteen years"* (Article 45, The Constitution of India). When we look back over our shoulders, it is not hard to see that much of that commitment has remained only on paper. While expansion of higher education in India has been remarkable, it is truly amazing that we have made only a meagre progress in spreading elementary education. In the present paper, we try to analyse the trends, patterns and interacting factors related to quantitative and qualitative aspects of Education System in India in recent years.

The paper is divided into seven sections. In the next section, we briefly outline the methodology of the study. The third section discusses the importance of literacy and educational attainment in socio-economic development. Thereafter we explore the trends and patterns in educational attainment in India and its regional aspects; the factors that affect such

attainment levels; and the factors affected by educational attainment. In the last section, we discuss the policy issues related to improvement in educational attainment in India.

II. METHODOLOGY

The attainment of education in India is sought to be measured by the indices of Literacy, Enrolment in schools, Dropout before completion of study and completion of school stages. We consider 1985, 1990, 1995, and 2000 as the reference years. Consequently, examining the 1995-2000 movements in various measures can bring out the post reform trends in educational attainment. The main data sources are various issues of Selected Educational Statistics published by the Ministry of Human Resource Development, Govt. of India.

III. LITERACY – BASIC INDICATOR OF EDUCATION

India is the home of 16% of World's total population accommodated in an area of 2.42% of the World's total land area and spends 3.8% of its GNP on education. However, even in 2001, about 35% of its 7+ people are illiterates. According to World Education Report 1998, about one third of the World's non-literate aged 15 years and above live in India. If we consider that Literacy - being able to read and write in someone's mother language - is the first step towards education, we find ourselves to be lagging far behind acceptable standards. Added to this is the fact that almost half of our women are illiterates, leading to a serious gender discrimination. Moreover, we have not yet achieved more than 68% literacy for the 0-9 Age group, indicating that the pool of illiterates is ever increasing. This has far reaching consequences as Literacy has wide socio-economic impacts. It is generally accepted that social phenomenon like Birth rates (CBR), Death rates (CDR), Infant Mortality Rates (IMR), and Population Growth Rates (PGR) decelerate with improvements in Literacy levels. This phenomenon is observed to be operating in India also, as we find that the Correlation between the State-level literacy rates and their CBR, CDR, IMR and PGR are significantly negative (Table 1). Apart from these social impacts, improvements in literacy levels lead to uplifting of living standards also. While work participation rates (WPR), per capita income (measured

by per capita net state domestic product – PCNSDP) and per capita consumption (monthly private consumption expenditure – MPCE) are observed to have significantly positive association with the literacy rate of the state, % of people below poverty level has a significant negative association with literacy. Thus, improvement of the 'inclusion rate' has not only aggregate uplifting effect but also desired distributional consequences. Moreover, in all these cases the association is found to be stronger with female literacy than male literacy, thereby underlying the importance of female education in India. This also identifies gender gap in educational attainment (EA) as an important issue for exploration.

We now move on to examine the trends and patterns of EA in India.

IV. EDUCATIONAL ATTAINMENT IN INDIA

It has already been highlighted that India is far behind acceptable standards regarding the first step towards education i.e. literacy. However, even that level is not uniformly attained throughout India. Wide regional disparity in EA standards is a vexing problem in India. We now explore those issues.

1. Literacy trends and patterns

Over the last century, literacy in India has increased from 5.3% in 1901 to 65.4% in 2001. However, the improvement is much more pronounced for the males compared to the females, especially till 1981. As a result, the gender gap (difference between the % figures for the males compared to the females - GG) in literacy soared from 9.2 points in 1901 to 26.8 points in 1981, but declined thereafter to 21.7 points in 2001. This attainment however has not been uniform across regions (Table 2). While Kerala has achieved 91% literacy level in 2001, with a GG of only 6 points, Bihar lags far behind with 51% literacy and 27 points GG. GG is also significantly high for Rajasthan, Orissa, Madhya Pradesh and Uttar Pradesh. If we construct a GG adjusted literacy rate, it is observed that the All India figure scales down to just 46%.[1] Strikingly poor performance is put up by Bihar (29%), Rajasthan (35%), Uttar Pradesh (40%) and Madhya Pradesh (42%). Kerala and Delhi exhibit laudable performances. It is also

observed that the hierarchy of the states have remained fairly stable over the period of study and the rank correlation coefficient between the literacy ranks of the states for the four time points are significantly positive. This is a matter of concern, as the relatively poor performers have remained slow movers also. The only source of consolation is that there seems to be a certain degree of convergence among the states with regional disparity (as shown by Coefficient of Variation among the states) declining continuously over the 1991-2001 decade.

2. Formal education – enrolment in schools

The step beyond literacy leads to the schools. We now examine the trends exhibited by school enrolment of children in India (Table 3). Enrolment in Primary schools has increased from 19.2 million in 1950-51 to 113.6 million in 2001. During the same period, enrolments in the middle and high schools have increased from 3.1 million and 1.5 million to 42 million and 28.2 million respectively. Even this phenomenal increase has not been enough to bring all our children to school. Scaling for population differences, Gross Enrolment Ratio (GER) and Net Enrolment Ratio (NER) are commonly used measures relevant for capturing the collecting power of the educational system.[2] The Gross Enrolment Ratio (GER) for primary stages has improved from 42.6% in 1950-51 to 95.7% in 2000-01. For the middle levels, the GER increased from 12.7% to 58.6% during the same period. There exists substantial GG in GER with the females lagging behind the males and only 86% and 49% of girls of the relevant age groups enrol for primary and middle schools respectively. The regional distributions of the GERs are quite disturbing (Table 4). The GG in primary GER is alarmingly high in Bihar, Orissa, Rajasthan and Uttar Pradesh, and the total GER is substantially low in these states along with in Delhi, Haryana and Punjab.[3] However, more alarming is the fact that regional disparity in GERs is found to be increasing with a continuous rise in CV in GER during 1985 to 2000. For the girls though, the CV has decreased marginally during 1990-2000 decade. The GER for the middle schools show similar regional pattern with substantial GG and relatively low GER in Bihar, Madhya

Pradesh, Orissa, Rajasthan, Uttar Pradesh and West Bengal (Table 5). GER is low in Delhi also, though the GG is low here. The regional disparity decreased during 1985-1995 period but increased in the next quinquenna. This increasing CV among the states for both primary and middle stages is perhaps due to continuous reduction in state plan expenditure on education. The less developed states, having higher marginal impact of state plan expenditure, are perhaps lagging behind because of this curtailment, thereby increasing the disparity. The GERs for secondary & higher secondary (S&HS) and higher education are not available for recent years. However, during the 1995-2000 period, total enrolment in S&HS stages increased by 4.1% and that in higher education by 10.5% (Table 6). It is to be noted that enrolment of girls in these stages have increased almost twice as fast as that of the boys. This rise in female enrolment in the higher levels of education might have been due to the urban factor. The globalisation has brought in widespread employment opportunities for the urban educated females thereby encouraging them to pursue higher education. However, significant regional disparity is again a matter of grave concern. Enrolments have decreased in Uttar Pradesh and West Bengal for S&HS level, and in higher education for the boys of Gujarat and Madhya Pradesh. On the other hand Delhi, Bihar and Karnataka exhibit substantial improvement for the S&HS level, and Kerala, Himachal Pradesh and Karnataka for higher education level. The CV in growth rates of enrolment has increased during 1995-2000 period for the S&HS stage but has decreased for the higher education levels. It can thus be commented that in an overall sense, enrolment of children in all stages of education in India have improved over the years. Matters of concern are substantial regional disparity that seems to be rising in the post reform period, and considerable GG that is more acute at the primary level compared to the higher stages.

The GER often exceeds 100 per cent due to inclusion of over-age, under-age, as well as repeat students for the concerned class. Consequently, NER is thought to be a better indicator of accessibility and capacity of the education system to enroll students. Recent data on NER is available for 1993 (from NCERT Sixth All India Educational Survey - 6AIES), 1995 (from

NSSO 52nd Round survey) and 2001 (from NCERT Seventh All India Educational Survey - 7AIES) only. The NSSO data for 1995-96 gives a Net Enrolment Ratio of 66 per cent for classes I-V and 43 per cent for classes VI-VIII. In rural areas this ratio was 63 and 39 per cent, respectively, for these classes. The corresponding ratios for urban areas were higher at 78 per cent for Primary classes and 58 per cent for the Middle classes. Moreover, while gender gap in the ratios for rural areas was significant, more so for the Middle classes, it was not so in urban areas. At State level, for Primary classes, the NER was significantly lower than the national average for Bihar, Rajasthan and Uttar Pradesh. Apart from these three States, for the Middle classes, the ratio was also lower than the national average in the States of Madhya Pradesh and West Bengal. However, for temporal comparability, we concentrate on the NCERT Surveys of 1993 and 2001. As per the 6AIES, NER was 62.2 per cent for children in age group 6 to below 11 years, and 44.8 per cent for ages 11 to below 14 years. However, at State level NER for boys in age group 6 to below 11 years in Kerala was seen to be lower than or close to that prevailing in a number of States like Assam, Bihar, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Orissa and Tamil Nadu. This is surprising, given the educational attainments in the State of Kerala. The 7AIES figures for 2001 show that the NER at the all India level have increased to 64.2 per cent for the 6 to 11 years age group and remained stagnant at 44.8 per cent for the 11 to 14 years age group (Table 7). The GG in NER in 2001 has been 13 percentage points for the Primary level and 14 percentage points for the Middle level. Regional distribution of NER also suggests that GG in NER is alarmingly high in Rajasthan, Bihar, Uttar Pradesh, Madhya Pradesh and Orissa, while it is quite low in Kerala, Punjab and Delhi (where it is in fact negative!). Similar results hold for the GG in Middle levels also.

While it is admitted that NER is a better reflector of the enrolment capacity of the educational system, lack of comparable data over a long time makes its use rather difficult. As a result we continue to use GER for the statistical analysis hereafter.

As a caveat, we compare NER and GER for the states for 2001 to explore the prevalence of over-age enrolment and repeaters in the school stages. It is observed that NER and GER are almost similar for the states of Delhi, Himachal Pradesh and Punjab. On the other hand substantial disparity between NER and GER is observed for West Bengal, Rajasthan (GER twice of NER), Andhra Pradesh, Maharashtra, and Madhya Pradesh indicating substantial number of repeaters and over-age enrolment in these states.

3. Retention of children in schools

It is observed that the GERs are significantly lower for the middle school stages compared to the primary stages consistently. This indicates that retention of children in schools is poor and only a fraction of the enrolled students complete school education. In fact, the Dropout rates (DOR) are substantially high in India. The primary, middle and secondary level DOR were 65% and 78% in 1960-61 and even in 2000-01, the DOR are 40.3%, 54.5% and 68.3% in primary, middle and secondary levels respectively. This indicates that only about 32% of the enrolled students complete their school education. Also, the DOR are higher for the girls compared to the boys. Though the DOR in the secondary level has decreased, it has increased for the primary and middle levels between 1995 and 2000. At the regional level, Zero DOR have been achieved in Kerala for primary and middle levels and in Delhi for secondary level. In contrast, Bihar has a DOR of more than 70% at primary and middle levels and both Bihar and West Bengal have more than 80% DOR at the secondary level (Table 8 & 9). These have resulted in a substantially high regional disparity and the CV in DORs is observed to be increasing during 1995-2000 period.

4. Completion of school stages

The DOR, though is a very important indicator of educational attainment, has certain limitations. It only reflects the percentage of the enrolled students that leave before completing a certain stage of schooling. However, to know what proportion of children of the relevant age group is attaining a certain level of schooling, one should concentrate on the

completion rate (CR).[4] It is observed that even in 2000, only 63%, 46% and 33% of the relevant age group children are completing primary, middle and secondary level education respectively (Table 10 & 11). The CRs have increased for the middle and secondary stages but has declined for the primary level during 1995-2000 period. The CRs are lower for the girls with only 37% and 26% of them completing middle and secondary schools. About three fourth of our girls are thus not completing even school education! The only exception has been Kerala, which has achieved 100% completion rates at primary and middle stages, and higher CR for the girls than the boys at the secondary level. This perhaps explains the social transformation observed in Kerala. Substantial regional disparity thus exists in CR also. At the secondary level, while Delhi has achieved a CR of 100%, that in Bihar and West Bengal are 10% and 22% only. Just 5% and 9% of girls in Bihar and Rajasthan complete their schooling. Similar disparities are observed for the primary and middle stages also. More serious however, is the fact that regional disparities in CRs have increased at all stages of education during 1995-2000 period, as indicated by the increased CV.

It can thus be inferred that universalisation of basic education has remained an elusive goal even after more than half a century of our independence. Given that elementary education is a minimum need of the people in the present world, it is quite clear that we have not been able to meet the necessity of our future generation. Nevertheless, what are the factors responsible for such lack lustre performance? Let us now explore them.

V. FACTORS AFFECTING EDUCATIONAL ATTAINMENT

Two major factors emerge as those that are responsible for our moderate success regarding EA.

Overbearing poverty has been a major cause of withdrawal of children from schools. In presence of an extensive child labour market, sending children to work fetches the family some additional income. Thus going to school has an opportunity cost which the parents are unwilling to bear. This is more true for the poor families for whom the marginal value of this

additional income is very high. As a result, even if the children start going to school, they do not continue for long. It is observed that incidence of poverty in the states have significant positive association with DOR and significant negative association with CR, thereby confirming the above notion (Table 12 & 13). Considering that in 1999-2000, 14% of 'out of school' children aged 5-14 cite 'supplementing household income' as the reason for dropping out of school, we must regard this issue very seriously.

While the economic reasons are important, lack of adequate educational infrastructure adds to the problems. The growth of educational institutions, teachers therein and the infrastructural facilities available have lagged far behind the growth of population in general and the growth of school going children in particular. Availability of schools per capita and teacher pupil ratio in primary level have declined during 1951-2001 period, falling by about 50% in the former case. The dependence of EA on State's support towards educational infrastructure is revealed by the facts that CRs are positively associated with availability of schools (per 1000 square km), the association being significant for the secondary stage. If we consider states' planned capital expenditure on education as an index of government support, we find that much of the regional disparity in EA can be attributed to this factor. Significant positive association between CR and real planned expenditure on education is observed. Consequently, the association between CR and a composite index of educational infrastructure is also observed to be significantly positive for all the time points.[5] It should be noted that the association is found to be stronger at the secondary and middle school level than at the primary level indicating that availability of educational infrastructure is more important at the higher levels compared to the elementary level. Apart from the dearth in numbers, the qualitative standards of the schools also play a vital role. Most of the schools do not have amenities like blackboards, drinking water facilities, and separate urinal for girls, lavatories, etc. This is not surprising when there are numerous schools without any building and classes are held under the customary banyan tree of the village! It is quite natural then that the children do not find school attractive. A crude association between percentage of

girls completing middle schools and percentage of primary and middle schools having separate urinals for girls is observed to be significantly positive (0.62). This shows just how important availability of basic amenities is in determining EA levels.

In the backdrop of these findings, it is necessary to re-examine our policy of gradually withdrawing state support towards provisioning of educational infrastructure in the post reform era.

VI. EFFECTS OF EDUCATIONAL ATTAINMENT

The most crucial impact of EA is on the socio-economic standards of the people. States having higher CRs also have higher PCNSDP and higher MPCE, as indicated by significant positive correlation coefficient between them (Table 14 & 15). Higher embodied human capital enables people to participate in better income earning opportunities. It cannot however be denied that this relationship is bi-directional. If we accept poverty and incidence of child labour as the major causes of school drop outs, the positive association between income and consumption level on one hand and CRs on the other may also be interpreted as a reflection of higher earning capabilities of the people enabling their wards to continue schooling. To test this bi-directionality of the relationship, lead-lag analysis is carried on by determining the correlation coefficient between CR and DOR of t^{th} time point and PCNSDP and MPCE of $(t-1)^{th}$ time point, as also between CR and DOR of $(t-1)^{th}$ time point and PCNSDP and MPCE of t^{th} time point. The magnitude of the coefficients would let us determine the strength of the directional causalities and conclude appropriately. It is observed that for the periods 1985-90 and 1990-95, the causality is stronger from EA to socio-economic standards than the other way round. However, in the post reform period, i.e. during 1995-2000 period the causation for the Primary level is stronger from the earning (& consumption) capabilities to the educational attainment factors than the other way round. This implies that in recent years, for the Primary section at least, lack of income capabilities is leading to higher dropouts and

lower completion rates. This underlines the increasing importance of income augmenting policies in ensuring educational attainment of our children.

There are however other direct consequences of improvements in EA. As has already been noted, Deprivation parameters like CBR, CDR and IMR are observed to be declining significantly with rise in CRs, especially with those of the females. This highlights the importance of women's education in ushering in of social transformation in India. These social changes are a pre-requisite of *'Take Off'* as indicated by Rostow (1960).

VII. CONCLUSION

It can thus be concluded that EA and providing elementary education to all our children has remained an un-assailed frontier. Substantial regional variation exists even within the moderate rate of success achieved by us and the disparity seems to be increasing in the post reform period. Under the present LPG (liberalisation-privatisation-globalisation) policy dispension, the opportunities offered by the market seems to have had an anti-egalitarian effect. While opportunities for the professionally trained, highly educated, skilled manpower have increased, thereby encouraging the upper echelons to acquire higher educational levels, declining State support towards education have made the task of acquiring even basic education more difficult for the general masses. A polarisation in human capital formation seems to be taking place in the post liberalisation era. This inequality in EA thus accentuates socio-economic inequalities.

In this context, few steps may be suggested to improve the situation.

The problems plaguing the expansion of EA in India must be tackled from both the supply side and the demand side so as to enhance enrolment on one hand and reduce dropout on the other. The supply side is facing problems of serious resource crunch. Under pressure to decrease fiscal deficit, the govt. finds it least troublesome (and politically most safe) to curtail developmental expenditure in general and those on education (and health) in particular. Resorting to cross subsidy may solve the resource problem. We must recognize that basic

education is the priority area and finance this sector by resource mobilisation from technical and professional education. The quality of education and the method of teaching must be reoriented to make learning more fun than an ordeal for the children.

To expand the demand for educational attainment, school going must be made an attractive option for the students. This would not be possible simply by banning child labour. If the income of the families, especially those below poverty line, does not rise, the parents would never find it worthwhile to send their children to school. Preventing children from working would simply prevent their brothers and sisters from attaining whatever little learning opportunities they enjoyed by virtue of their siblings' supplementary income. Cost of schooling should be limited by making school education less input-intensive and more dependent on classroom learning of basic maths, science, social studies and environment. Vocational education after Class VIII must be popularised, with greater link between industry and educational institutions. Loans for self-employment may be linked to outturn of ITIs and Polytechnics. Facilitating linkages between early childhood care and primary education, and involving local self-governance institutions in planning, implementation and monitoring of education will improve the quality and reach of educational services. Devolution of funds at the local level may be attached to performance of schools in the area regarding enrolment and retention. Closer monitoring of the situation by NGOs and involving them to impart education to the marginalized groups will also expand the education-net.

As a concluding comment, it must be said that we must sincerely attempt to fulfil the Constitutional obligation to provide free and compulsory education for all children, at least up to the age 14. Education must be seen as an agent of liberation and social transformation, and so strengthening the school system and its links with the community, leading to greater social harmony must be a social aim. We must keep in mind that the best investment avenue for us is to invest in our human capital as that has been the main ingredient of all the great waves of development that have swept mankind.

Notes

[1] Gender gap adjusted literacy rate is constructed by finding out the proportion of the lower rate relative to the higher and then multiplying the total literacy rate with this relative.

[2] Gross Enrolment Ratio refers to enrolment at a specified level of schooling, irrespective of the age of student enrolled, to the population of children in the age group expected to be at that level of schooling as per prevalent norms on school enrolments. Thus, for instance, GER at primary school level would be the percentage of children in classes I to V to total number of children in age group 6 to 11 years. This ratio is indicative of the general level of participation at a given school level and captures, to some extent, accessibility and capacity of the education system to enroll students. The ratio often exceeds 100 per cent due to inclusion of over-age, under-age, as well as repeating students for the concerned class, especially in developing countries. On the other hand, Net Enrolment Ratio refers to proportion of the population, of a particular age group, enrolled at a specific level of schooling, to the total population in that age group. Thus, for instance, NER for primary classes will be ratio of children of 6 to below 11 years enrolled in classes I to V to the total number of children in the age group 6 to 11 years. The ratio overcomes the shortcoming of gross enrolment ratio as it captures age-specific enrolment of students in the classes they ought to be as per the prevailing norms for school enrolments.

[3] The fall in GER for Delhi perhaps is due to huge influx of migrants into Delhi, especially in recent years.

[4] Completion rate is derived by multiplying primary enrolment rate with reciprocal of drop out rate for relevant stages and year, e.g. CR for middle stage for 2000 is obtained by multiplying GER at primary in 1992 by (100 – DOR of middle stage during 2000).

[5] Educational infrastructure index is prepared by using modified principal component method. The variables included for this purpose are – spread of primary, middle and secondary schools and colleges, both per capita and per square km; teacher-pupil ratio in primary schools; and, per capita planned expenditure on education. For a discussion on the methodological issues on modified principal component method, see Kundu (1984).

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Table 1

Socio-economic Correlates of Literacy Rates

Year	Correlation With	Male	Female	Total
	Crude Birth Rate	-0.786**	-0.821**	-0.819**
	Crude Death Rate	-0.776**	-0.844**	-0.816**
	Infant Mortality Rate	-0.683**	-0.737**	-0.725**
1990	PCNSDP	0.478	0.471	0.491
	WPR	0.260	0.255	0.251
	Incidence of Poverty	-0.367	-0.413	-0.412
	MPCE	0.465	0.455	0.479
	Crude Birth Rate	-0.758**	-0.813**	-0.805**
	Crude Death Rate	-0.639**	-0.709**	-0.684**
	Infant Mortality Rate	-0.808**	-0.862**	-0.850**
1995	PCNSDP	0.569*	0.593*	0.607*
	WPR	-0.032	-0.064	-0.061
	Incidence of Poverty	-0.386	-0.487	-0.463
	MPCE	0.654**	0.667**	0.678**
	Crude Birth Rate	-0.611*	-0.791**	-0.748**
	Crude Death Rate	-0.589*	-0.712**	-0.712**
	Infant Mortality Rate	-0.627**	-0.809**	-0.765**
2000	PCNSDP	0.632**	0.681**	0.699**
	WPR	0.206	0.173	0.182
	Incidence of Poverty	-0.431	-0.44	-0.459
	MPCE	0.664**	0.703**	0.731**

Note: * - Significant at 5%, ** - Significant at 1%.

Source: Author's Calculations.

Table 2

Literacy, Gender Gap and Gender gap adjusted Literacy Rates in Indian States during 1991-2001

States	1991					1995					2001				
	M	**F**	**T**	**GG**	**Adj T**	**M**	**F**	**T**	**GG**	**Adj T**	**M**	**F**	**T**	**GG**	**Adj T**
Andhra Pr	55	33	44	22	26	60	37	49	23	30	71	51	61	20	44
Bihar	52	23	38	29	17	59	28	44	31	21	64	37	51	27	29
Delhi	82	67	75	15	61	86	74	80	12	69	87	75	82	12	71
Gujarat	73	49	61	24	41	77	50	64	27	42	81	59	70	22	51
Haryana	69	40	56	29	32	72	52	63	20	46	79	56	69	23	49
Himachal Pr	75	52	64	23	44	81	61	71	20	53	86	68	77	18	61
Karnataka	67	44	56	23	37	67	51	59	16	45	76	57	67	19	50
Kerala	94	86	90	8	82	95	89	91	6	85	94	88	91	6	85
Madhya Pr	58	29	44	29	22	61	34	48	27	27	77	51	64	26	42
Maharashtra	77	52	65	25	44	83	62	73	21	55	86	68	77	18	61
Orissa	63	35	49	28	27	66	42	54	24	34	76	51	64	25	43
Punjab	66	50	59	16	45	68	54	62	14	49	76	64	70	12	59
Rajasthan	55	20	39	35	14	59	26	43	33	19	76	44	61	32	35
Tamil Nadu	74	51	63	23	43	76	54	65	22	46	82	65	73	17	58
Uttar Pr	56	25	42	31	19	63	34	49	29	26	75	50	60	25	40
West Bengal	68	47	58	21	40	76	55	66	21	48	78	60	69	18	53
INDIA	**64**	**39**	**52**	**25**	**32**	**69**	**46**	**58**	**23**	**39**	**76**	**54**	**65**	**22**	**46**
Coeff of Variation	16.3	37.7	23.9	27.4	45.5	14.6	32.5	21.2	32.1	39.2	8.7	20.5	13.5	31.7	26.2

Note: M- Male, F- Female, T- Total, GG- Gender Gap, Adj T- GG adjusted Total.

Source: Author's calculation based on Census of India GOI (Various Years), Statistical Abstract, GOI (2001).

Table 3

Sex-Wise Enrolment by Stages since 1951 (In million)

YEAR	Primary			Middle/Upper Primary			High/Hr. Secondary		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1950-51	13.8	5.4	19.2	2.6	0.5	3.1	1.3	0.2	1.5
1955-56	17.1	7.5	24.6	3.8	1.0	4.8	2.2	0.4	2.6
1960-61	23.6	11.4	35.0	5.1	1.6	6.7	2.7	0.7	3.4
1965-66	32.2	18.3	50.5	7.7	2.8	10.5	4.4	1.3	5.7
1970-71	35.7	21.3	57.0	9.4	3.9	13.3	5.7	1.9	7.6
1975-76	40.6	25.0	65.6	11.0	5.0	16.0	6.5	2.4	8.9
1980-81	45.3	28.5	73.8	13.9	6.8	20.7	7.6	3.4	11.0
1985-86	52.2	35.2	87.4	17.7	9.6	27.1	11.5	5.0	16.5
1990-91	57.0	40.4	97.4	21.5	12.5	34.0	12.8	6.3	19.1
1995-96	62.4	47.4	109.8	25.0	16.0	41.0	16.1	8.8	24.9
2000-01	64.1	49.5	113.6	25.1	16.9	42.0	17.2	11.0	28.2

Source: Author's Calculation based on Selected Educational Statistics, MHRD, GOI (Various Years).

Table 4

Gross Enrolment Ratios in Primary Level - States

States	1985			1990			1995			2000		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Andhra Pradesh	85	64	75	123	95	109	116	100	108	105	103	104
Bihar	94	51	73	115	56	81	96	54	76	100	60	80
Delhi	76	75	76	87	88	87	86	87	87	59	60	59
Gujarat	84	69	76	142	111	127	131	126	129	140	114	127
Haryana	83	67	76	94	79	86	110	95	103	78	79	78
Himachal Pradesh	83	73	78	125	109	117	127	112	119	99	82	90
Karnataka	93	80	87	115	107	111	124	115	120	117	109	113
Kerala	87	86	87	100	98	99	104	101	102	88	87	88
Madhya Pradesh	99	66	83	119	89	105	117	91	105	120	102	111
Maharashtra	89	79	84	132	119	126	124	115	119	111	106	108
Orissa	85	62	74	120	87	103	117	78	97	132	96	114
Punjab	87	85	86	102	95	98	93	88	91	78	79	78
Rajasthan	85	41	66	107	50	79	120	61	91	140	84	113
Tamil Nadu	98	74	96	112	128	135	149	141	145	99	98	98
Uttar Pradesh	75	45	61	105	67	87	101	73	89	81	49	66
West Bengal	80	65	71	140	118	124	125	123	124	113	107	110
INDIA	**86**	**66**	**76**	**117**	**88**	**103**	**115**	**93**	**105**	**105**	**86**	**96**
Coeff of Variation%	8.2	18.6	11.3	12.6	22.1	15.5	13.5	23.0	16.3	22.4	21.8	20.4

Source: Author's Calculation based on Selected Educational Statistics, MHRD, GOI (Various Years).

Table 5

Gross Enrolment Ratios in Middle Schools - States

States	1985			1990			1995			2000		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Andhra Pradesh	45	25	35	71	43	57	74	53	64	56	48	52
Bihar	46	16	31	53	21	37	47	21	35	40	20	40
Delhi	70	67	69	83	80	82	82	78	80	52	52	52
Gujarat	77	56	67	85	59	72	83	56	70	73	59	66
Haryana	73	42	58	75	51	64	82	59	71	65	59	62
Himachal Pradesh	86	64	75	125	96	111	124	98	111	99	87	93
Karnataka	73	50	62	66	47	57	72	57	65	78	70	74
Kerala	86	86	86	106	104	105	108	106	107	101	97	99
Madhya Pradesh	67	29	48	74	36	56	83	50	67	71	47	59
Maharashtra	81	58	70	92	67	80	89	72	81	94	86	90
Orissa	51	30	41	65	38	52	68	47	57	65	43	54
Punjab	71	58	65	79	66	73	72	63	68	65	65	65
Rajasthan	61	17	40	66	23	45	77	29	54	102	47	76
Tamil Nadu	98	70	84	109	86	98	111	91	101	94	92	93

Uttar Pradesh	52	26	40	68	33	52	72	35	55	47	23	36
West Bengal	57	39	48	74	56	65	98	89	94	61	47	54
INDIA	**63**	**38**	**51**	**74**	**47**	**61**	**79**	**55**	**68**	**67**	**50**	**59**
Coeff of Variation%	21.9	42.4	28.6	23.2	42.3	30.1	21.8	36.9	27.0	27.8	38.6	28.9

Source: Author's Calculation based on Selected Educational Statistics, MHRD, GOI (Various Years).

Table 6
Growth of Enrolment in Secondary, Higher Secondary and Higher Education
Average Annual Growth Rates 1985-2000

States	1985-1995						1995-2000					
	Secondary & HS			Higher Education			Secondary & HS			Higher Education		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Andhra Pradesh	2.4	2.7	2.5	1.6	4.3	2.5	3.1	6.8	4.5	10.9	12.3	11.4
Bihar	-1.3	-0.1	-1.1	1.0	0.6	0.9	9.4	12.8	10.2	4.9	4.7	4.9
Delhi	0.4	0.2	0.4	3.9	0.5	2.6	21.9	31.8	26.6	3.8	17.4	9.3
Gujarat	1.8	2.2	2.0	1.3	2.2	1.6	3.1	2.2	2.7	-0.4	1.3	0.3
Haryana	2.0	5.9	3.2	-1.0	2.1	0.2	5.7	11.1	7.7	10.9	11.1	11.0
Himachal Pradesh	1.9	3.3	2.4	9.9	10.3	10.0	3.1	8.5	5.3	19.8	31.0	23.7
Karnataka	2.7	1.5	2.2	2.4	3.5	2.7	3.8	10.3	6.3	14.5	34.9	22.7
Kerala	2.3	3.1	2.7	-7.7	-4.3	-5.8	2.0	2.7	2.3	34.0	35.4	34.9
Madhya Pradesh	1.2	2.4	1.5	1.1	0.5	1.0	5.0	9.9	6.5	-0.4	8.9	2.6
Maharashtra	0.8	1.8	1.2	0.3	1.5	0.7	2.1	5.5	3.4	1.5	3.4	2.2
Orissa	6.2	7.2	6.6	2.9	4.0	3.2	0.6	2.5	1.2	8.3	5.3	7.5
Punjab	1.7	3.1	2.3	4.0	4.0	4.0	2.4	4.5	3.3	4.1	4.4	4.2
Rajasthan	1.6	-0.5	1.2	2.5	4.5	3.1	-0.1	10.2	2.2	9.2	14.9	11.0
Tamil Nadu	1.0	1.3	1.1	-1.8	-1.2	-1.6	0.6	6.7	3.2	10.6	18.3	14.0
Uttar Pradesh	0.7	0.7	0.7	0.4	0.3	0.4	-1.4	1.2	-0.7	15.2	26.9	18.5
West Bengal	1.0	2.6	1.5	0.1	0.1	0.1	-1.0	-3.8	-2.0	11.3	11.6	11.4
INDIA	**1.4**	**2.1**	**1.6**	**0.9**	**1.5**	**1.1**	**2.8**	**6.6**	**4.1**	**8.3**	**14.3**	**10.5**
Coeff of Variation%	77.5	101.5	81.5	358.0	160.0	161.5	138.3	97.4	129.6	86.2	75.7	77.1

Source: Author's calculation based on sources mentioned for Table 5.

Table 7

Net Enrolment Ratios in Primary and Middle Schools in 2001 - States

States	Primary			Middle			All Elementary		
	Boys	**Girls**	**Total**	**Boys**	**Girls**	**Total**	**Boys**	**Girls**	**Total**
Andhra Pradesh	63	54	58	35	25	30	53	44	49
Bihar	77	47	63	41	21	32	65	39	53
Delhi	75	78	77	82	82	82	78	80	78
Gujarat	81	71	76	62	50	56	74	63	69
Haryana	69	66	68	55	45	50	64	59	62
Himachal Pradesh	84	80	82	68	60	64	78	72	75
Karnataka	83	73	78	54	43	49	72	63	68
Kerala	79	76	77	83	81	82	80	78	79
Madhya Pradesh	85	68	76	47	26	37	72	54	63
Maharashtra	73	68	71	51	44	48	65	60	63
Orissa	81	64	73	52	35	44	71	54	63
Punjab	74	71	73	56	53	55	67	64	66
Rajasthan	71	39	56	49	20	35	63	33	49
Tamil Nadu	80	76	78	91	83	87	84	79	81
Uttar Pradesh	56	38	48	51	28	41	54	35	45
West Bengal	53	47	50	35	27	31	47	40	43
INDIA	**71**	**57**	**64**	**51**	**37**	**45**	**64**	**50**	**58**
Coeff of Variation%	13.0	22.1	15.7	28.9	48.4	36.4	15.1	27.4	19.6

Source: NCERT, Seventh All India Educational Survey, 2001, from the website www.shikshanic.in

Table 8

Drop Out Rates in Primary, Middle and Secondary Levels - States - 1995

States	Primary 1990-95			Middle 1987-95			Secondary 1985-95		
	Boys	**Girls**	**Total**	**Boys**	**Girls**	**Total**	**Boys**	**Girls**	**Total**
Andhra Pradesh	42.5	41.8	42.2	59.9	66.5	62.8	76.7	82.1	79.0
Bihar	61.6	65.9	62.9	72.2	82.8	79.1	83.5	90.1	85.9
Delhi	19.3	28.8	25.7	16.1	31.4	23.4	33.6	46.6	39.9
Gujarat	41.8	51.1	45.9	54.7	65.1	59.4	66.6	73.6	69.7
Haryana	1.6	6.8	3.9	17.6	32.1	23.9	45.4	58.0	50.7
Himachal Pradesh	18.9	26.3	22.4	8.5	24.1	15.8	42.2	58.8	50.0
Karnataka	36.1	36.8	36.4	56.1	32.9	60.9	64.9	73.9	69.1
Kerala	0.0	0.0	0.0	1.9	2.0	2.0	35.6	24.3	30.1
Madhya Pradesh	23.4	35.0	28.4	38.1	54.1	44.7	75.5	85.2	79.3
Maharashtra	19.1	25.5	22.1	41.5	54.0	47.4	57.6	69.5	63.5
Orissa	57.1	52.1	55.1	62.6	59.0	61.2	53.4	63.6	57.5
Punjab	22.6	22.9	22.8	42.3	51.2	46.4	52.2	61.7	56.6
Rajasthan	51.2	59.3	53.7	61.3	72.5	64.7	79.1	88.4	81.9
Tamil Nadu	15.6	17.6	16.5	30.8	39.4	34.7	61.5	69.2	65.1
Uttar Pradesh	20.3	21.1	20.6	32.2	48.4	37.9	47.9	73.1	56.9
West Bengal	36.2	45.8	40.4	48.8	43.9	46.7	75.7	76.5	76.1
INDIA	**35.2**	**37.8**	**36.3**	**50.0**	**56.5**	**52.7**	**67.2**	**73.8**	**69.9**
Coeff of Variation%	57.0	50.0	52.6	48.7	39.8	43.2	25.6	22.4	23.3

Source: Author's calculation based on sources mentioned for Table 5.

Table 9

Drop Out Rates in Primary, Middle and Secondary Levels - States - 2000

States	Primary 1995-00			Middle 1992-00			Secondary 1990-00		
	Boys	**Girls**	**Total**	**Boys**	**Girls**	**Total**	**Boys**	**Girls**	**Total**
Andhra Pradesh	40.8	42.2	41.5	61.3	65.2	63.1	76.5	77.6	77.0
Bihar	70.0	73.0	71.1	71.9	80.3	75.0	86.1	91.5	88.0
Delhi	5.4	6.0	5.7	49.6	52.4	51.0	0.0	0.0	0.0
Gujarat	22.6	24.4	23.4	47.1	58.0	52.1	70.6	74.9	72.5
Haryana	23.7	19.7	21.9	13.6	22.5	17.7	26.7	42.7	34.0
Himachal Pradesh	30.5	24.0	27.5	20.5	23.4	21.9	34.5	38.0	36.2
Karnataka	24.7	18.5	21.9	50.8	51.2	51.0	61.3	65.3	63.2
Kerala	0.0	0.0	0.0	0.0	0.0	0.0	23.8	14.3	19.2
Madhya Pradesh	16.0	12.8	14.6	60.1	67.9	63.4	62.2	76.4	68.4
Maharashtra	15.9	18.8	17.3	35.4	38.9	37.0	52.5	59.0	55.6
Orissa	41.5	42.8	42.1	57.3	64.8	60.7	75.4	74.6	75.1
Punjab	24.6	20.2	22.5	40.1	37.4	38.9	35.4	35.7	35.5
Rajasthan	46.0	62.7	52.5	46.8	64.6	53.6	75.1	81.1	77.1
Tamil Nadu	53.0	31.7	42.6	16.1	32.4	24.0	58.0	58.9	58.4
Uttar Pradesh	52.9	62.1	56.5	59.1	71.5	63.9	56.2	73.2	62.1
West Bengal	46.2	57.0	51.5	67.7	74.4	70.9	79.1	86.1	82.6
INDIA	**38.7**	**42.3**	**40.3**	**52.0**	**58.0**	**54.5**	**66.6**	**70.6**	**68.3**
Coeff of Variation%	63.1	70.5	64.7	48.0	45.0	45.5	58.3	65.2	61.2

Source: Author's calculation based on sources mentioned for Table 5.

Table 10

Completion Rates of Primary, Middle and Secondary Levels - States - 1995

States	Completed Primary			Completed Middle			Completed Secondary		
	Boys	**Girls**	**Total**	**Boys**	**Girls**	**Total**	**Boys**	**Girls**	**Total**
Andhra Pradesh	71	55	63	34	22	28	20	11	16
Bihar	44	19	30	26	9	15	16	5	10
Delhi	70	63	65	64	52	58	51	40	46
Gujarat	68	54	61	38	24	31	28	18	23
Haryana	92	73	83	69	46	58	45	28	37
Himachal Pradesh	95	80	91	76	56	66	48	30	39
Karnataka	74	67	71	41	54	34	33	21	27
Kerala	100	98	99	86	84	85	56	65	61
Madhya Pradesh	91	58	75	61	30	46	24	10	17
Maharashtra	95	89	91	52	36	44	38	24	31
Orissa	50	41	46	32	26	29	40	23	31
Punjab	79	73	76	50	41	46	41	32	37
Rajasthan	52	20	37	33	11	23	18	5	12
Tamil Nadu	95	91	93	68	45	63	38	23	34
Uttar Pradesh	84	53	69	51	23	38	39	12	26
West Bengal	75	62	70	41	36	38	20	15	17
INDIA	**76**	**55**	**65**	**43**	**29**	**36**	**28**	**17**	**23**
Coeff of Variation%	22	35	27	37	52	44	39	65	47

Source: Author's calculation based on sources mentioned for Table 5.

Table 11

Completion Rates of Primary, Middle and Secondary Levels - States - 2000

States	Completed Primary			Completed Middle			Completed Secondary		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Andhra Pradesh	69	58	63	47	33	40	29	21	25
Bihar	29	15	22	28	11	20	16	5	10
Delhi	81	82	82	44	42	43	100	100	100
Gujarat	100	95	99	70	45	58	26	22	24
Haryana	84	76	80	76	62	69	69	45	57
Himachal Pradesh	88	85	86	96	77	86	82	68	75
Karnataka	93	94	94	60	54	57	45	37	41
Kerala	100	100	100	100	100	100	76	84	80
Madhya Pradesh	98	79	90	45	27	37	45	21	33
Maharashtra	104	93	98	79	68	74	63	49	56
Orissa	68	45	56	55	30	41	30	22	26
Punjab	70	70	71	56	56	56	66	61	63
Rajasthan	65	23	43	57	19	38	27	9	18
Tamil Nadu	70	96	83	100	88	100	47	53	56
Uttar Pradesh	48	28	39	36	15	26	46	18	33
West Bengal	67	53	60	42	31	37	29	16	22
INDIA	**70**	**54**	**63**	**54**	**37**	**46**	**39**	**26**	**33**
Coeff of Variation	28.0	41.5	33.1	41.1	55.9	46.1	74.0	93.7	83.2

Source: Author's calculation based on sources mentioned for Table 5.

Table 12

Correlates of Dropout Rates – Correlation Coefficient of Dropout Rates with select indicators

Year	Correlates	Primary			Middle			Secondary		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1990	Poverty	0.542*	0.447	0.460	0.570*	0.569*	0.570*	0.579*	0.576*	0.585*
	No. of Schools	-0.386	-0.143	-0.157	-0.490	-0.447	-0.466	-0.803**	-0.613*	-0.663**
	Edu Infra Index	-0.572*	-0.323	-0.338	-0.574*	-0.527*	-0.550*	-0.803**	-0.591*	-0.656**
	RPLEXEDU[a]	-0.333	-0.073	-0.098	-0.354	-0.308	-0.339	-0.621*	-0.368	-0.452
1995	Poverty	0.441	0.408	0.420	0.419	0.370	0.414	0.422	0.455	0.437
	No. of Schools	-0.113	-0.040	-0.050	-0.200	-0.183	-0.167	-0.462	-0.405	-0.438
	Edu Infra Index	-0.091	-0.041	-0.039	-0.298	-0.177	-0.259	-0.459	-0.352	-0.409
	RPLEXEDU[a]	-0.469	-0.380	-0.423	-0.414	-0.209	-0.376	-0.256	-0.129	-0.207
2000	Poverty	0.481	0.470	0.491	0.529*	0.536*	0.539*	0.608*	0.553*	0.583*
	No. of Schools	-0.211	-0.165	-0.191	0.116	0.049	0.089	-0.798**	-0.845**	-0.828**
	Edu Infra Index	-0.336	-0.332	-0.341	0.057	-0.008	0.031	-0.748**	-0.804**	-0.781**
	RPLEXEDU[a]	-0.186	-0.274	-0.237	-0.136	-0.074	-0.102	-0.582*	-0.602*	-0.597*

Note: Poverty – Incidence of Poverty; Edu Infra Index – Educational Infrastructure Index; a – State's Real Plan Expenditure on education; * - Significant at 5%, ** - Significant at 1%.

Source: Author's calculation.

Table 13

Correlates of Completion Rates – Correlation Coefficient of Completion Rates with select indicators

Year	Correlates	Primary			Middle			Secondary		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1990	Poverty	-0.441	-0.446	-0.383	na	na	na	na	Na	na
	No. of Schools	0.329	0.070	0.073	na	na	na	na	Na	na
	Edu Infra Index	0.510*	0.235	0.240	na	na	na	na	Na	na
	RPLEXEDU[a]	0.298	-0.053	0.001	na	na	na	na	Na	na
1995	Poverty	-0.281	-0.385	-0.347	-0.347	-0.420	-0.406	-0.387	-0.477	-0.460
	No. of Schools	-0.136	-0.013	-0.091	0.095	0.204	0.121	0.383	0.367	0.385
	Edu Infra Index	-0.144	-0.006	-0.086	0.190	0.198	0.208	0.388	0.320	0.357
	RPLEXEDU[a]	0.450	0.355	0.383	0.426	0.141	0.373	0.253	0.112	0.215
2000	Poverty	-0.369	-0.402	-0.402	-0.313	-0.399	-0.368	-0.499*	-0.494	-0.497*
	No. of Schools	-0.112	0.008	-0.042	-0.219	-0.059	-0.142	0.893**	0.860**	0.883**
	Edu Infra Index	0.076	0.182	0.142	-0.139	0.003	-0.072	0.873**	0.838**	0.863**
	RPLEXEDU[a]	0.090	0.282	0.209	0.188	0.170	0.188	0.677**	0.669**	0.699**

Note: Poverty – Incidence of Poverty; Edu Infra Index – Educational Infrastructure Index; a – State's Real Plan Expenditure on education; na – Not Available as Completion Rates could not be calculated for 1990 due to non-availability of GER for 1982 and 1980. * - Significant at 5%, ** - Significant at 1%.

Source: Author's calculation.

Table 14

Impact of Dropout from Schools – Correlation Coefficient of Dropout Rates with select indicators

Year	Correlates	Primary			Middle			Secondary		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1990	CBR	0.627**	0.475	0.495	0.490	0.592*	0.516*	0.496	0.668**	0.552*
	CDR	0.658**	0.602*	0.596*	0.477	0.590*	0.506*	0.413	0.621*	0.486
	IMR	0.450	0.412	0.433	0.323	0.486	0.382	0.202	0.496	0.338
	PCNSDP	-0.597*	-0.376	-0.407	-0.512*	-0.475	-0.484	-0.640**	-0.512*	-0.543*
	WPR	-0.325	-0.331	-0.315	-0.317	-0.271	-0.290	-0.104	-0.177	-0.141
	MPCE	-0.632**	-0.414	-0.439	-0.606*	-0.593*	-0.599*	-0.730**	-0.621*	-0.649**
1995	CBR	0.520*	0.501*	0.507*	0.490	0.583*	0.508*	0.459	0.634**	0.532*
	CDR	0.351	0.428	0.387	0.309	0.541*	0.376	0.266	0.535*	0.374
	IMR	0.523*	0.520*	0.518*	0.532*	0.623**	0.551*	0.473	0.702**	0.575*
	PCNSDP	-0.456	-0.371	-0.400	-0.400	-0.310	-0.368	-0.509*	-0.436	-0.466
	WPR	0.061	0.051	0.050	0.030	-0.028	0.028	0.193	0.176	0.205
	MPCE	-0.447	-0.341	-0.379	-0.548*	-0.469	-0.533*	-0.592*	-0.551*	-0.574*
2000	CBR	0.471	0.573*	0.526*	0.468	0.578*	0.511*	0.383	0.480	0.423
	CDR	0.519*	0.505*	0.521*	0.442	0.524*	0.480	0.656**	0.707**	0.679**
	IMR	0.532*	0.533*	0.542*	0.506*	0.601*	0.551*	0.562*	0.631**	0.595*
	PCNSDP	-0.608*	-0.605*	-0.619*	-0.321	-0.390	-0.350	-0.814**	-0.828**	-0.821**
	WPR	-0.124	-0.263	-0.196	-0.258	-0.262	-0.258	0.255	0.193	0.233
	MPCE	-0.609*	-0.592*	-0.613*	-0.350	-0.410	-0.376	-0.850**	-0.887**	-0.870**

Note: CBR – Crude Birth Rate; CDR – Crude Death Rate; IMR – Infant Mortality Rate; PCNSDP – Per Capita Net State Domestic Product; WPR – Work Participation Rate; MPCE – Monthly Private Consumption Expenditure; * - Significant at 5%, ** - Significant at 1%.

Source: Author's Calculation.

Table 15

Impact of Educational Attainment – Correlation Coefficient of Completion Rates with select indicators

Year	Correlates	Primary			Middle			Secondary		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1990	CBR	-0.585*	-0.610*	-0.543*	na	na	na	na	na	na
	CDR	-0.667**	-0.708**	-0.684**	na	na	na	na	na	na
	IMR	-0.444	-0.582*	-0.527*	na	na	na	na	na	na
	PCNSDP	0.521*	0.372	0.353	na	na	na	na	na	na
	WPR	0.391	0.367	0.407	na	na	na	na	na	na
	MPCE	0.543*	0.356	0.346	na	na	na	na	na	na
1995	CBR	-0.404	-0.643**	-0.538*	-0.459	-0.683**	-0.570*	-0.485	-0.695**	-0.629**
	CDR	-0.446	-0.740**	-0.623**	-0.390	-0.674**	-0.545*	-0.381	-0.622*	-0.548*
	IMR	-0.419	-0.650**	-0.543*	-0.520*	-0.740**	-0.628**	-0.513*	-0.778**	-0.685**
	PCNSDP	0.285	0.453	0.366	0.325	0.366	0.366	0.480	0.441	0.477
	WPR	0.233	0.218	0.258	0.079	0.064	0.075	-0.105	-0.124	-0.101
	MPCE	0.227	0.364	0.299	0.429	0.470	0.473	0.526*	0.533*	0.547*
2000	CBR	-0.492	-0.698**	-0.619*	-0.561*	-0.735**	-0.659**	-0.385	-0.549*	-0.474
	CDR	-0.389	-0.531*	-0.479	-0.339	-0.543*	-0.454	-0.648**	-0.728**	-0.689**
	IMR	-0.394	-0.572*	-0.505*	-0.431	-0.665**	-0.565*	-0.528*	-0.660**	-0.597*
	PCNSDP	0.444	0.559*	0.528*	0.214	0.401	0.318	0.844**	0.854**	0.854**
	WPR	0.444	0.462	0.460	0.533*	0.419	0.484	-0.237	-0.123	-0.174
	MPCE	0.412	0.516*	0.485	0.231	0.405	0.327	0.882**	0.906**	0.900**

Note: CBR – Crude Birth Rate; CDR – Crude Death Rate; IMR – Infant Mortality Rate; PCNSDP – Per Capita Net State Domestic Product; WPR – Work Participation Rate; MPCE – Monthly Private Consumption Expenditure; a – Not determined due to non-availability of GER for 1982 and 1980. Significant at 5%, ** - Significant at 1%.

Source: Author's Calculation.