

## **Girls' Education In India: Where Do We Stand?**

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### **ABSTRACT**

In a developing country like India, girls' education plays a significant role in the overall growth and development of the country by reducing the difference in the position of men and women in the country. This paper examines the status of girls' education in India using the data on state wise gross enrolment ratio for the years 2001 and 2012. It has been found that there is no significant difference in the gross enrolment ratio between the girls and the boys in cases of primary and the upper primary stages for the years 2002 and 2012. But there exists a significant difference in the gross enrolment ratio between the primary and upper primary stage in case of the total students as well as the girl students of the same. A statistically significant state wise disparity in all cases has also been found.

**Keywords:** Girls' education, state wise disparity, primary education, upper primary education, gross enrolment ratio, India.

### **1.**

### **INTRODUCTION**

Women's education plays a vital role to contribute for national progress and it is a good indicator of development. Educating a woman helps create a spill over effect on their families and thereby the society at a large. Women education also prepares them for participating in social and civic life, make decisions, exercise their rights. Lack of education limits prospects, decreases family income, reduces health, puts women and girls at risk of trafficking and exploitation and limits the economic development of the entire country. There are dire needs for investment in the education of a woman.

Women in pre-independent India were subjected to discrimination, inequality and oppression. They were not allowed to attend schools or colleges and their role remained confined to domestic affairs. J.E.D Bethune, the then President of the Education Council, India, took the initiative of educating women and established a school for girls in 1849 in Calcutta called the Hindu Female School which was later renamed as the Bethune School. Many other reformers like Raja Ram Mohan Roy, Ishwar Chandra Vidyasagar, Jyotirao Phule and Peary Charan Sarkar fought for the betterment of women's education in India. Although various schools and colleges were set up, girls from rich and affluent families only joined those institutions. Girls belonging to the poor families or the lower section of the society were still debarred from education.

In post Independent era also, the situation didn't much improve. The national female literacy rate remained very low. There existed insoluble social and cultural barriers to education of women and access to organised schooling. In spite of the Sharda Act, which was passed in 1950s to raise the marital age limit for girls to 18, child marriage particularly in North India was quite prevalent. Sprawling inequalities persisted in their access to education also. Though a number of constitutional amendments were made for women, they were never effective to bring a radical change in the situation. It was only by the 1960s, that a few educated women began to see themselves as a legitimate participant in the discourse of life.

Currently, in India, despite all the promises of Millennium Development Goals, 43% of scheduled class and a shocking 50% of scheduled tribe women are illiterate in 2011 (Census. 2011). Although dropout rate has reduced to some extent but that still does not justify universalisation of education as girl child status is still demoralising, as the 2011 census shows the literacy rate for women being 65.5% as against 82.1% for men (Das and Pathak, 2012). There is still a large section of women who are uneducated and are married off before the age of 18. Parents still don't see the point spending money on girl's education. While in urban India, women's education has taken a great momentum, the practice is quite slow in rural India.

Today, after we crossed the target year of the Millennium Development Goals (2015), it is time to take an account of the situation of the women in India regarding education. This paper analyses the status as well as the extent of improvement of girls' education (I-VIII) in India based on state wise data of state wise gross enrolment ratio of the years 2002 and 2012. Section 2 of the paper reviews the literature in brief; section 3 proposes the research objective; section 4 explains the data source and the methodology used for analysis; section 5 analyses the paper and section 6 concludes the paper and suggests some policy.

## 2.

### LITERATURE REVIEW

The issue of women's education has intrigued many researchers and a wide range of research is at hand. Kishor and Gupta (2009) provided a snapshot of gender equality and levels of women empowerment in India where three important aspects of gender were identified namely: (a) Gender tends not to be value neutral, (b) Gender involves differences in power, both power to and power over, and (c) Gender is not static or immutable. The study used data on multiple indicators from the National Family Health Surveys NFHS-1 (1992-93), NFHS-2 (1998-99) and NFHS-3, 2005-06) and examined the level of women's empowerment and gender equality in India and its 29 states, and found that gender inequality was persistent in every domain and women were disempowered both absolutely and relative to men. In addition the progress toward gender equality and women's empowerment was found to be very slow. Nair (2010) examined the issue of women's access to education in India and provided an overview of the state of education with respect to women and also highlighted some of the issues and barriers to women's education. Among the various barrier to women's education that were identified some of them are inadequate school facilities, some are sociological, rooted in gender stereotyping and gender segregation and some are driven by economic constraints. Bhat et al (2011) provided a case study to trace the educational backwardness of the women in Jammu and Kashmir. They showed that the women of the state suffer disproportionately in education relative to men and have low literacy rate, show low enrolment ratio and exhibit high dropout ratio. The paper was on secondary data obtained from Census of India 2001 and supplemented with State Digest of Statistics and Government report. Das and Pathak (2012) attempted to estimate gender disparity in primary and secondary education to be achieved by 2015 according to MDG, with special emphasis on girls' position. The study was based on secondary data collected by various published sources like Census Reports, MHRD Reports, Books, Journals, Magazine, etc. The study concludes that in the absence of constructive, objective and progressive legislative reforms, which are mutually articulate and consistent and can effectively address these facts and realities, the goal of Millennium Development would remain an illusion. Singh and Kaur (2013) studied the gender based statistical profile of rural elementary school education in India. They used the secondary data on key parameters of rural elementary school education in India with regard to gender disparity from the Fourth, Fifth and Sixth All India Educational Survey (AIES) Reports and Seventh All India School Education Survey (AISES). The study concludes that gender disparity is reducing for the number of estimated rural child population, rural enrolment at elementary stages in different categories of schools, rural gross enrolment ratio at elementary stages and rural teachers in elementary schools.

## 3.

### RESEARCH OBJECTIVE

Given the recent development agenda of the developing countries there is no doubt that elementary education is one of the precondition of a good quality human resource and hence economic development. Therefore, given the background, this paper tries to:

- Analyse the status as well as the change in the situation of girls' education (I-VIII) in India based on state wise data of state wise gross enrolment ratio (GER) of the years 2002 and 2012.

## 4.

## DATA AND METHODOLOGY

## 4.1 Data

This paper uses secondary data on state wise gross enrolment ratio of boys, girls and total (I-VIII), of the years 2002 and 2012. The data source is the seventh All India School Education Survey for the year 2002 and the Statistics of School Education for the year 2011-12.

## 4.2 Methodology

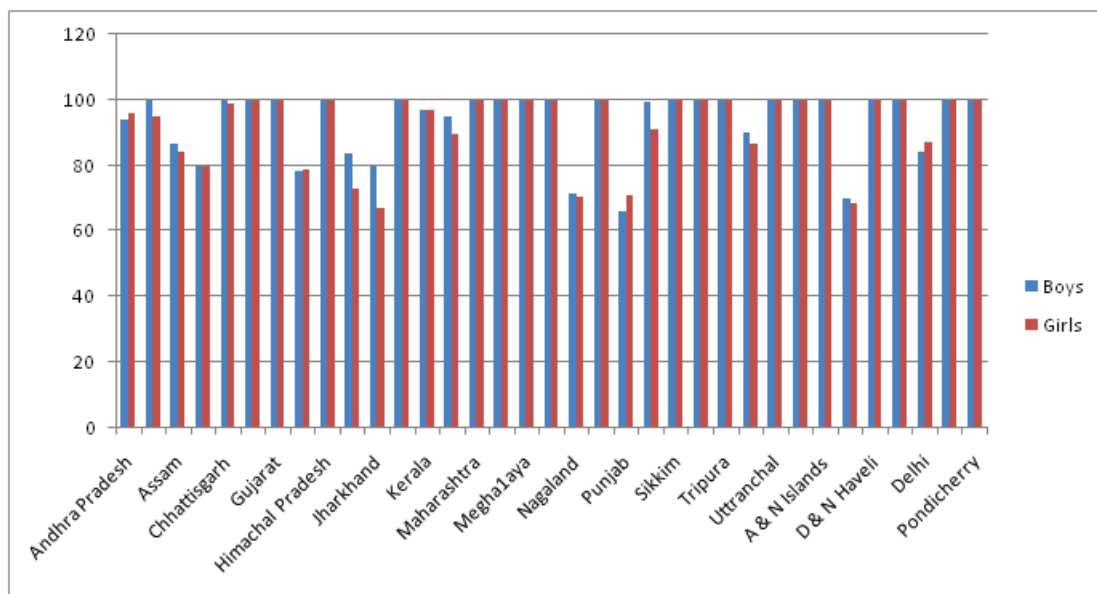
For analysis, some simple, descriptive, statistical tools like has been used. To test state wise disparity, - difference test has been used and to test the inter-temporal increase in gross enrolment ratio of girls, gender wise for both the years 2002 and 2012,  $\mu$ -difference test has been used.

## 5.

## ANALYSIS

To analyse the situation of girls' education in India, and its changing pattern, the state wise data on gross enrolment ratio was taken for the years 2002 and 2012. Figure 1 compares the average gross enrolment ratio of the girls and the boys of the primary stage in different states of India for the year 2002. It is clear from the figure that there existed a disparity in certain state like Jharkhand, Jammu and Kashmir, Assam, Madhya Pradesh, etc.

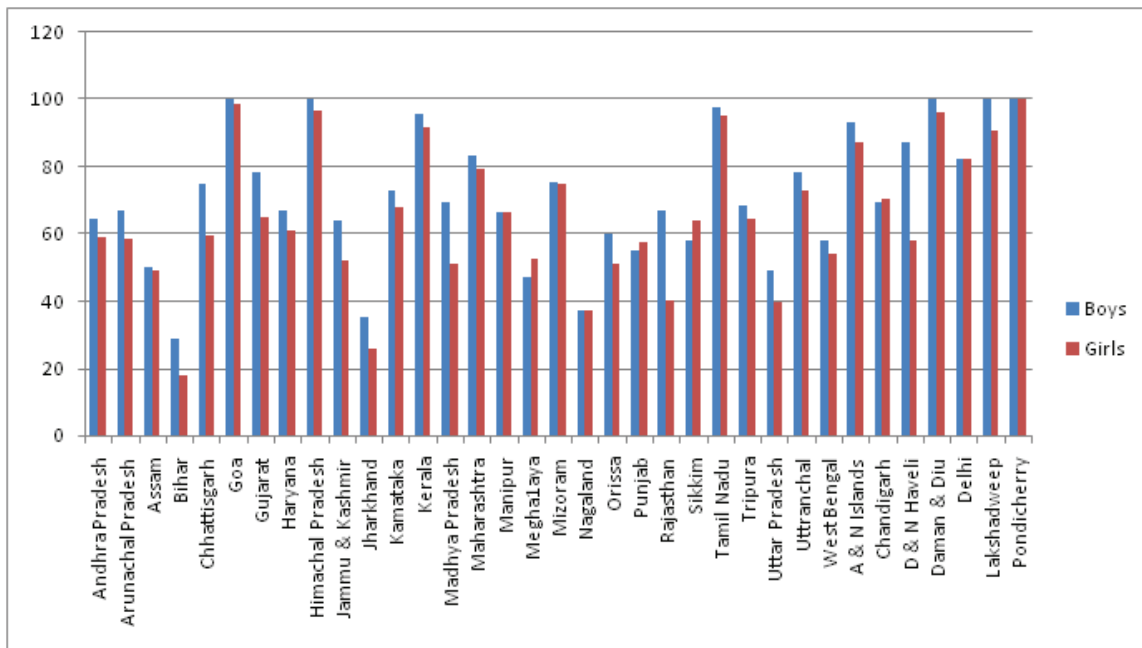
**FIGURE 1:-** State wise disparity in the primary stage for the year 2002



Source: All India School Education Survey, 2002

Figure 2 compares the average gross enrolment ratio of the girls and the boys of the upper primary stage in different states of India for the year 2002. It is clear from the figure that disparity existed in most of the states like Bihar, Gujarat, Orissa, Rajasthan, etc.

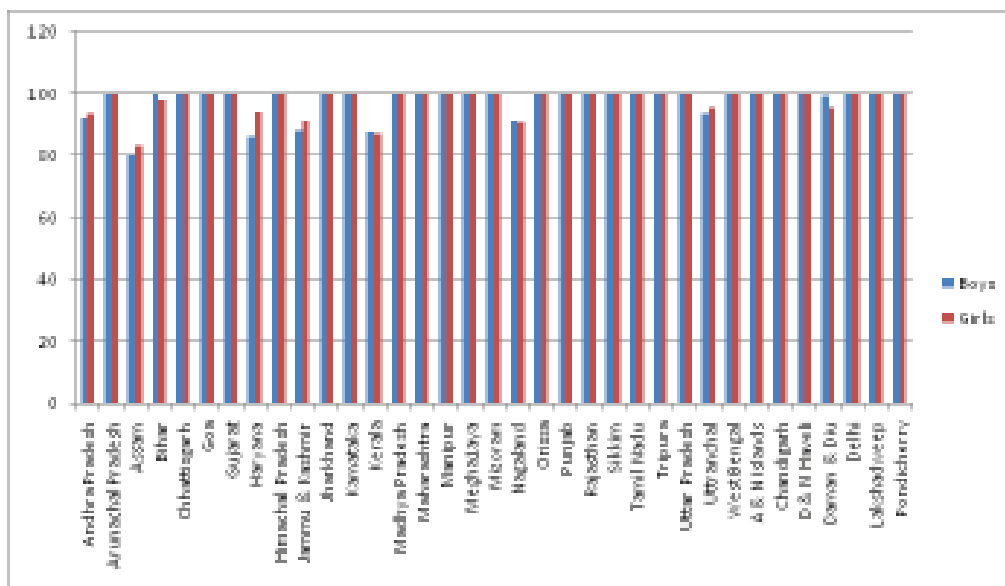
FIGURE 2:- State wise disparity in the upper primary stage for the year 2002



Source: All India School Education Survey, 2002

Figure 3 compares the average gross enrolment ratio of the girls and the boys of the primary stage in between the states of India for the year 2012. It is clear from the figure that the average gross enrolment ratio of the boys is greater than the girls only in Bihar, Kerala and Daman and Diu whereas in states like Andhra Pradesh, Assam, Haryana, Jammu and Kashmir and Uttaranchal the average gross enrolment ratio of the girls is higher than that of the boys.

FIGURE 3:- State wise disparity in the primary stage for the year 2012



Source: Statistics of School Education 2011-12



**5.3:**  $\mu$ - difference test in between the state wise average GER of the total students of primary stage (I-V) and upper primary stage (VI-VIII) for the year 2002

Here, the null hypothesis ( $H_0$ ) is that the two population means of the total students of primary stage ( $\mu_3$ ) and the total students of upper primary stage ( $\mu_6$ ) are equal

i.e., to test  $H_0: \mu_3 = \mu_6$  against (alternative hypothesis)  $H_1: \mu_3 > \mu_6$

Test statistic,  $z = 6.24$ , S.E = 3.88

That is, in this case, the null hypothesis is rejected and therefore the difference in  $\mu_3$  and  $\mu_6$  is significant at 5% level i.e., the average gross enrolment ratio of the students (in total) is significantly lower in the upper primary level than in the primary level for the year 2002.

**5.4:**  $\mu$ - difference test in between the state wise average GER of the boys and girls of primary stage (I-V) for the year 2012

Here the null hypothesis ( $H_0$ ) is that the two population means of the boys ( $\mu_7$ ) and the girls ( $\mu_8$ ) of the primary stage are equal.

i.e., to test  $H_0: \mu_7 = \mu_8$  against (alternative hypothesis)  $H_1: \mu_7 > \mu_8$

Test statistic,  $z = -0.28$ , S.E = 1.11

Here also, the null hypothesis is accepted at 5% level, i.e., there was no significant difference between the average gross enrolment ratio of the boys and the girls of the primary stage for the year 2012.

**5.5:**  $\mu$ - difference test in between the state wise average GER of the boys and girls of upper primary stage (VI-VIII) for the year 2012

Here, the null hypothesis ( $H_0$ ) is that the two population means of the boys ( $\mu_{10}$ ) and the girls ( $\mu_{11}$ ) of the upper primary stage are equal.

i.e., to test  $H_0: \mu_{10} = \mu_{11}$  against (alternative hypothesis)  $H_1: \mu_{10} > \mu_{11}$

Test Statistics,  $z = -0.09$  S.E = 2.78

The null hypothesis is accepted and therefore the difference in  $\mu_{10}$  and  $\mu_{11}$  is not significant at 5% level i.e., there is no significant difference between the average gross enrolment ratio of the girls and the boys of the upper primary stage for the year 2012.

**5.6:**  $\mu$ - difference test in between the state wise average GER of the total students of primary stage (I-V) and upper primary stage (VI-VIII) for the year 2012

Here, the null hypothesis ( $H_0$ ) is that the two population means of the total students of primary stage ( $\mu_9$ ) and the total students of upper primary stage ( $\mu_{12}$ ) are equal.

i.e., to test  $H_0: \mu_9 = \mu_{12}$  against (alternative hypothesis)  $H_1: \mu_9 > \mu_{12}$

Test statistic,  $z = 4.84$ , S.E = 2.08

Here also, the null hypothesis is rejected and therefore the difference in  $\mu_9$  and  $\mu_{12}$  is significant at 5% level i.e., the average gross enrolment ratio of the students (in total) is significantly lower in the upper primary level than in the primary level for the year 2012.

**5.7:**  $\mu$ - difference test in between the state wise average GER of the girls of primary stage (I-V) and girls of upper primary stage (VI-VIII) for the year 2002

Here, the null hypothesis ( $H_0$ ) is that the two population means of the girls of primary stage ( $\mu_2$ ) and the girls of the upper primary stage ( $\mu_5$ ) are equal.

i.e., to test  $H_0: \mu_2 = \mu_5$  against (alternative hypothesis)  $H_1: \mu_2 > \mu_5$

Test statistic,  $z = 6.76$ , S.E = 4.00

Here, the difference in  $\mu_2$  and  $\mu_5$  is significant at 5% level i.e. there was a significant fall in the average gross enrolment ratio of the girls from the primary stage to the upper primary stage for the year 2002.

**5.8:**  $\mu$ - difference test in between the state wise average GER of the girls of primary stage (I-V) and girls of upper primary stage (VI-VIII) for the year 2012

Here, the null hypothesis ( $H_0$ ) is that the two population means of the girls of primary stage ( $\mu_8$ ) and the girls of upper primary stage ( $\mu_{11}$ ) are equal.

i.e., to test  $H_0: \mu_8 = \mu_{11}$  against (alternative hypothesis)  $H_1: \mu_8 > \mu_{11}$

Test statistic,  $z = 4.89$ ,  $S.E = 2.09$

The difference in  $\mu_8$  and  $\mu_{11}$  is significant at 5% level, i.e. there was a significant difference between the average gross enrolment ratio of the girls of the primary and upper primary stage for the year 2012.

$\sigma$  – difference test (shows the state-wise disparity):-

**5.9:**  $\sigma$  – difference test in between the state wise GER of the years 2002 and 2012 for girls of primary stage (I-V)

Here, the sample variances of the girls of primary stage (I-V) in between the years 2002 and 2012 are denoted by  $S_2$  and  $S_8$  respectively and the population variances of the girls of primary stage (I-V) in between the years 2002 and 2012 are denoted by  $s_2$  and  $s_8$  respectively.

To test  $H_0: \sigma_2 = \sigma_8$  against  $H_1: \sigma_2 > \sigma_8$

Sample S.D:  $S_2 = 11.03$ ,  $S_8 = 4.14$

Sample variances:  $S_2^2 = 121.66$ ,  $S_8^2 = 17.14$

Population variance:  $s_2^2 = 125.24$ ,  $s_8^2 = 17.64$

Test statistic,  $F = 7.09$ , with d.f.

Since,  $F = 7.09 > 1.00$  (critical region at 5% level is 1.00), the null hypothesis is rejected and therefore, there is a significant fall in the variances i.e. the state wise disparity in the gross enrolment ratio of the girls of the primary stage significantly reduced between the year 2002 and 2012.

**5.10:**  $\sigma$  – difference test in between the state wise GER For girls of upper primary stage (VI-VIII) of the years 2002 and 2012

Here, the sample variances of the girls of upper primary stage (VI-VIII) in between the years 2002 and 2012 are denoted by  $S_5$  and  $S_{11}$  respectively and the population variances of the girls of upper primary stage (VI-VIII) in between the years 2002 and 2012 are denoted by  $s_5$  and  $s_{11}$  respectively.

To test  $H_0: \sigma_5 = \sigma_{11}$  against  $H_1: \sigma_5 > \sigma_{11}$

Test statistics,  $F = 3.63$ , d.f.

That means, the null hypothesis is rejected and therefore, there was a significant fall in the state wise disparity between the year 2002 and 2012 for the girls of the upper primary stage.

## 6.

## CONCLUSION AND POLICY SUGGESTION

This paper concludes that there is no significant difference in the average gross enrolment ratio of the boys and the girls in both the primary and the upper primary stage. This is probably because of the Sarva Shiksha Abhiyan which has been operational since 2000-2001 and aimed at the universalisation of elementary education and also because of the National Programme of Mid Day Meals in School that was initiated by the Central Government under which the students of both the primary and upper primary sections are provided with a cooked mid day meal. But there is a significant decrease in the gross enrolment ratio of the girls in the upper primary stage than in the primary stage and this result is same for both the years.

The second part of the analysis reveals the fact that the state wise disparity gross enrolment ratio of the girls in both the primary and upper primary stage significantly reduced during 2002 and 2012. MDG was introduced in the year 2000 and it aimed at eliminating gender disparity in primary and secondary education, preferably by 2015; which was found to be quite complied with.

It may also be noted that the sex ratio (age 0 to 5) in India for the year 2012 was 940 i.e., it was very low compared to the world. Therefore, it can be concluded that the girl children who are born are not deprived of the primary and upper primary education compared their male counterparts. There also is the issue of drop outs in upper primary stage. But, the actual disparity lies in the difference in the birth rate of the girls and the boys. Therefore, both the state and the central government should take initiatives and launch programmes to create awareness regarding female foeticide. Also the state and central government should take initiatives to reduce the state wise disparity.

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