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AN ANALYSIS OF STATE-WISE GENDER GAP IN LITERACY RATES IN INDIA

Dr. R. Rajendran* & S.Sangeetha**

**Principal and Professor , A.V.V.M Sri Pushpam College, Poondi, Thanjavur, Tamil Nadu*
***Assistant Professor, Department of Economics, A.V.V.M Sri Pushpam College, Poondi, Thanjavur, Tamil Nadu*

ABSTRACT

In this article an analysis of state-wise gender gap in literacy rates in India. Human the central part of any activity being consumption or benefit, production or fortification growth or expansion whatever be the activity it is purely human oriented and human determined. The early theories of growth even the commonplace growth model of Harrod and Domar gave importance to non-human aspects like saving, speculation, capital-output ratio etc. In short early theories gave importance to ease of use of natural resources but very soon it was realized that utilization rather supply of natural resources is important for economic improvement. The main inferences that could be drawn from the table average literacy rate for both poor and non-poor states is higher than national literacy rate i.e. 85.73 and 81.25 >74.04. Average literacy rate of male for poor and non-poor states is higher than national female literacy rate ie 85.73 and 81.25 > 65.46. Average literacy rate of non-poor states for both the sexes are far better than poor states. Better and effective utilization of women power which is needed for faster and sustainable development is possible only if women are educated. Educated women can do wonders in this world. The major obstacles in their path of growth are the discriminatory attitudes of the society. So steps should be taken to change these discriminatory attitudes. In this connection there are eight broad heading in introduction, statement of problem, objectives, hypothesis, methodology, data analysis and conclusion.

KEYWORDS: Literacy, Speculation, Rates, Education, Sustainable development.

INTRODUCTION

Human the central piece of any activity being consumption or welfare, production or protection growth or development whatever be the activity it is purely human oriented and human determined. The early theories of growth even the standard growth model of Harrod and Domar gave importance to non-human aspects like saving, investment, capital-output ratio etc. In short early theories gave importance to availability of natural resources but very soon it was realized that utilization rather supply of natural resources is important for economic progress. To prove it if we take the history behind the success of East Asian tigers like South Korea, Tiawan, HongKong, and Singapore and some emerging East Asian economics such as Malaysia, Thailand, Indonesia, Vitetnam and Philipines gave ample evidence of rapid economic growth with limited natural resources, the most notable reason for the this being given emphasis on social development ahead of economic development. Economists recognized the importance of human capital very early. In 1776 Adam Smith defined human capital as the "acquired and useful abilities of all the inhabitants or members of the society. In 1890 Alfred Marshall stressed the importance of human capital by stating the most valuable of all capital is that, invested in human beings The Organization for Economic Co-Operation and Development (OECD)defines human capital are the productive wealth embodied in labour ,skill and knowledge. The best known application of the idea of human capital in economics is that of Mincer and Gary S.Becker of Chicago school of economics. According to Gary S. Becker, human capital is similar to physical means of production like factories, machines, one can invest in human capital via education, training, medical treatment) and ones output depend partly on the rate of return on the human capital one owns. Human capital can be gained through multiple sources like education, training, experience, family. Theoretical literature suggests three main channels through which human capital effects economic growth. Brooks, Rachelle et. al, (2005) Historically Black Colleges and Universities' (HBCUs) relative share of black students' total enrollment in higher education has been declining over the past three decades. Using annual data from 1976 to1998 and OLS procedures, the regression results show evidence from the parameter estimates that black students' enrollment at HBCUs is significantly determined by the real average cost of tuition and fees and the real average Pell Grant. The real median income of black households has a positive but not statistically significant coefficient in determining the variations observed in the enrollment level. Other explanatory variables included in the model with statistically coefficients are a dummy variable representing federal policies and law enforcement effort regarding higher education, and a trend variable representing demographic changes of the black population.

REVIEW OF LITERATURE

Kuh, George D., (1999)This paper examines outcomes and student efforts devoted to educationally purposeful activities at different points. While substantial proportions of students make noteworthy progress in intellectual and communication skills, personal and social development, and vocational training, declines occurred in literature, arts, science, and values development. One explanation for the declines is that students on average expend less effort in many areas since the

mid-1980s, even though they are getting higher grades Zhang, Liang (1974) This study reviews and explores varying effects of college quality caused by different measures of college quality, including Barron's ratings, mean SAT scores of entering freshman class, tuition and fees, and Carnegie Classification. Data for this research come from NCES's Baccalaureate & Beyond study. Results indicate that the estimated effect of college quality is sensitive to the measure of college quality, suggesting that different measures of college quality may provide a partial explanation for varying effects of college quality in previous studies. More importantly, this analysis shows that the common wisdom—that it pays to attend high-quality colleges—is robust to these measures.

Colbeck, Carol L (2002) This study analyzed implementation of mandate and inducement policies to improve under-graduate instruction. Ohio legislation mandated that faculty increase teaching time by ten percent. Tennessee's performance funding initiative provided incentives to institutions meeting state standards. Faculty and administrator responses to these policies were compared at a research and a comprehensive university in each state. Matthew P. Steinberg et. al, (2009) Access to higher education in the United States is increasingly on the public policy agenda as funding constraints affect the realization of college attendance for many middle and low-income students. We use the Pell Grant as a proxy for low-income participation, and the percent of undergraduate students receiving a Pell Grant (Pell Prevalence Ratio, or "PPR") in 2003-04 at 846 public and private universities as the variable of interest to address two questions. First, what factors contribute to the variation among universities in their PPR? Second, to what extent does an institution's actual PPR deviate from the PPR estimated from our empirical model?

Li, Hongbin.,Zhang et. al, (2008) Testing the trade-off between child quantity and quality within a family is complicated by the endogeneity of family size. Using data from the Chinese Population Census, we examine the effect of family size on child educational attainment in China. We find a negative correlation between family size and child outcome, even after we control for the birth order effect. We then instrument family size by the exogenous variation that is induced by a twin birth and find a negative effect of family size on children's education. We also find that the effect of family size is more evident in rural China, where the public education system is poor. Given that our estimates of the effect of having twins on nontwins at least provide the lower bound of the true effect of family size, these findings suggest a quantity-quality trade-off for children in developing countries. Perna, Laura W et. al, (2004) This study uses multilevel modeling to examine, after taking student-level predictors of enrollment into account, the effects of state public policies on the type of institution high school graduates attend. Four types of state policies (direct appropriations, tuition, financial aid, and K-12 academic preparation) influence the type of college high school graduates select. Observed socioeconomic status differences in college enrollment patterns are not explained by the student- and state-level variables in the model.

Zhang, Liang, (1974) This article estimates the standard demand equations for nonresident students using national, state, and institutional level data. The national-level analysis reveals a near-unitary price elasticity, but increases in nonresident

tuition and fees do not decrease nonresident enrollment. Finally, results from the institutional level of analysis (preferred) indicate rather inelastic student responsiveness to changes in nonresident tuition and fees. On average, a 1% increase in nonresident tuition and fees at a public institution is associated with a 0.2% reduction in its nonresident enrollment. Furthermore, price elasticity is smaller at selective institutions than at less selective ones.

Perna, Laura W (2005) This study analyzes data from the NELS:92/00 to explore sex, racial/ethnic, and socioeconomic group differences in the benefits that high school graduates realize from college. Sex differences in higher education benefits may be a source of observed differences between women and men in college enrollment and degree attainment rates. The findings also suggest that observed racial/ethnic and SES group differences in college enrollment cannot be attributed to actual differences in higher education's economic and non-economic benefits, as some benefits are greater for African Americans than for Whites and benefits generally do not vary by SES.

Hu, Shouping et. al, (2003) This study tests a learning productivity model for undergraduates at four-year colleges and universities using hierarchical linear modeling. Data were from 44,238 full-time enrolled undergraduates from 120 four-year colleges and universities who completed the College Student Experiences Questionnaire (CSEQ) between 1990 and 1997. Perceptions of the campus environment influenced student learning productivity by affecting institution-level student effort, learning efficiency, and student gains. Student affairs professionals and other educators can promote higher levels of student learning by helping to create environments that enhance learning efficiency and engage students in educationally purposeful activities.

First education increases human capital of a country's labour force which lead to greater technological innovation and finally higher level human capital enhance a country's capacity to understand and implement new technology. The World Bank asserts that education is central for development that is, it empowers people and strengthens nations. Intuition and theory provide strong support for the importance of human capital and education but the empirical findings are less certain.

Statewise Literacy Rate And Per Capita Income

LITERACY RATE(%)(2011)				
State	Persons	Male	Female	Per Capita Income (INR) (2011)
Maharastra	82.91	89.82	75.48	74,027
Uttar Pradesh	69.72	79.24	59.26	23,132
Andhra Pradesh	67.66	75.56	59.74	51,025
Tamilnadu	80.33	86.81	73.86	62,499
Gujarat	79.31	87.23	70.73	63,961
West Bengal	77.08	82.67	71.16	41,469
Karnataka	75.60	82.85	68.13	50,676
Rajasthan	67.06	80.51	52.66	34,189
Kerala	93.91	96.02	91.98	59,179
Madhyapradesh	70.63	80.53	60.02	27,250
Haryana	76.64	85.38	66.77	78,781
Punjab	76.68	81.84	71.34	62,153
Bihar	63.82	73.39	53.33	16,119
Orissa	73.45	82.40	64.36	33.226
Chattisgarh	71.04	81.45	60.59	38,059
Jharkand	67.63	78.45	56.21	30,719
Assam	73.18	78.81	67.27	27,197
Uttarkhand	79.63	88.33	70.70	55,877
Himachalpradesh	83.78	90.83	76.60	50,365
Jammu&Kashmir	68.74	78.26	58.01	30,582
Goa	87.40	92.81	81.84	1,32,719
Tripura	87.75	92.18	83.15	35,799
Meghalaya	75.48	77.17	73.78	42,601
Manipur	79.85	86.49	73.17	28,531
Nagaland	80.11	83.29	76.69	21,434
Arunachalpradesh	66.95	73.69	59.57	51,644
Mizoram	91.58	93.72	89.40	45982
Sikkim	82.20	87.29	76.43	48937

***Source:** State wise literacy rate report.*

STATEMENT OF THE PROBLEM

Every economy is faced with three main problems namely the problem of allocation of resources, the problem of fuller utilization of resources and the problem of growth of resources. With regarding to the first problem the main problems are what to produce, how to produce, for whom to produce and the problem of efficiency of resources .The concept of "efficiency" is not only applicable to human resources but it is also applicable to human. Utilization of resources is possible only through proper education and extent of gender gap in education tells the inefficient utilization of resources. The second problem namely the full employment of resources both physical and human resources is a problem faced by most of the third world countries and India too fall in this category. In India half of the population consist of women and it is surprising to note that we are not yet been fully tapping this large reservoir of human brain by proper education. Our over all progress will definitely be faster, if this fact

is taken into account and implemented. So studying gender gap in education indirectly measures the amount of under utilization of human brain.

Gender gap in literacy means washing away the spread effect of female's education. Spread effect means that female education has more positive effect like reduction in fertility rate, better health of the family, better home management, effective utilization of resources etc. So wider the gap in literacy means washing away the positive spread effect of female's education. So present paper analyses ,the extent of gender gap in literacy rate or under utilization of human brain in poor and non-poor Indian states.

OBJECTIVE

- To analyze the impact of class and gender on literacy rates of male and female in poor and non- poor states

HYPOTHESES

- There is no significant difference between average literacy rate of non-poor female and poor male.
- There is no difference between average literacy rate of non-poor male and non-poor female.

METHODOLOGY

For analyzing the objective and for testing the hypotheses the paper has fully relied on secondary data which were collected from Human Development Report (2011) and through internet. The Indian states were classified as poor and non-poor states on the basis of their per capita income.As the country's per capita income has reached $1000, states whose per capita income is less than national per capita income is treated as poor and other states as non-poor states. There are 12 states whose per capita income is less than $1000 and they are Uttar- Pradesh, Rajasthan, Madhya Pradesh, Bihar, Orissa, Chattisgarh, Jharkhand, Assam, Jammu and Kashmir, Tripura, Manipur and Nagaland and there are 16 states whose per capita income is above $1000 they are Maharastra, Andhra Pradesh, Tamilnadu, Gujarat, West Bengal, Karnataka, Kerala, Haryana, Punjab, Uttarkhand, Himachal Pradesh, Goa, Meghalaya, Arunachal Pradesh, Mizoram and Sikkim. For lucid analysis of the data, the data have been presented in a 2x2 matrix form and for testing the hypotheses small sample "t" test has been employed.

DATA ANALYSIS

The table clearly depicts that class and gender affects the social variable (education) to a great extent. The main inferences that could be drawn from the table average literacy rate for both poor and non-poor states is higher than national literacy rate ie 85.73and81.25 >74.04. Average literacy rate of male for poor and non-poor states is higher than national female literacy rate ie 85.73 and 81.25>65.46. Average literacy rate of non-poor states for both the sexes are far better than poor states.

Cross-Sectional table between Class and Gender

Category	CLASS		Class differences within Gender gap in Literacy rate
	Non Poor States	Poor States	
Average Male literacy Rate	85.73	81.25	4.48
Average Female literacy Rate	73.59	63.73	9.86
Gender differences within class in literacy Rate	12.14	17.52	-

The average literacy rate of male for both poor and non-poor states is better than the female literacy rate. Gender differences within class for both poor and non-poor states is high ie 17.52and 12.14. Even cross-sectional gender differences is favorable for male ie average literacy rate of male poor is higher than average literacy rate of non-poor female ie81.25>73.59 At the whole it could be concluded that education the most powerful social weapon to a great extent is deprived to female. Whether a girl is born in a hut or in a palace, in a high income family or in a poor income family, in a slum or in a aristocratic family, irrespective of her birth place the terms of trade in all aspects like food, education, health etc is negatively skewed for her, the simple reason for it being she is a **GIR** .There exists no significant difference between average literacy rate of non-poor female and poor male.

Calculated Value	Table Value @V=26 for t 0.01	Conclusion
3.03	2.779	CV > TV, Reject the hypothesis

Since the calculated value is greater than the table value we reject the hypothesis and conclude that there exists a significant difference between average literacy rate of non-poor female and poor male or class has significant impact in literacy rate. There is no significant difference between average literacy rate of non-poor male and female.

Calculated Value	Table Value@V=30 for t 0.01	Conclusion
21.96	2.576	CV > TV, reject the hypothesis

Since the calculated value is greater than table value, we reject the hypothesis and conclude that there exists significant difference between average literacy rate of non-poor male and non-poor female or gender has a significant influence on the female literacy rate. The reasons for low female literacy rate could be low parental motivation for female education. Along with this, the main reason can be due to gender division of labour. In rural India large majority of girls are expected to spend most of their adult life in domestic work, child rearing etc. According to Sudhir Kakar, the investments the parents make in the education of a daughter primarily benefit other distant households. This reduces the perceived value of female

education from the point of view of parental self - interest. Practice of dowry also makes the literacy of female very poor.

CONCLUSION

The above estimate clearly signifies the importance of women in this world. Better and effective utilization of women power which is needed for faster and sustainable development is possible only if women are educated. Educated women can do wonders in this world. The major obstacles in their path of growth are the discriminatory attitudes of the society. So steps should be taken to change this discriminatory attitudes' Human the central part of any activity being consumption or benefit, production or fortification growth or expansion whatever be the activity it is purely human oriented and human determined. The early theories of growth even the commonplace growth model of Harrod and Domar gave importance to non-human aspects like saving, speculation, capital-output ratio etc. In short early theories gave importance to ease of use of natural resources but very soon it was realized that utilization rather supply of natural resources is important for economic improvement. The main inferences that could be drawn from the table average literacy rate for both poor and non-poor states is higher than national literacy rate i.e. 85.73 and 81.25 >74.04. Average literacy rate of male for poor and non-poor states is higher than national female literacy rate ie 85.73 and 81.25 > 65.46. Average literacy rate of non-poor states for both the sexes are far better than poor states. Better and effective utilization of women power which is needed for faster and sustainable development is possible only if women are educated. Educated women can do wonders in this world.

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