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Gender Gap in Education - An Indian Human Capital Formation Concern

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Abstract- The divergence in gender counts amongst all countries has caused unrest in multinational platforms almost a decade ago. Gender equality and women empowerment is the third goal amongst eight most concerning causes as per united nation's millennium development goals. After years of policy intervention socio-economic situations have diverged to an extent that new goals and impact studies are required for further improvements. India has shown one of the best results in addressing all eight goals. However, inequality within Indian states has increased remarkably. The backwardness of women from these states is due to gender gap in almost all aspect of socio economic study. The concept of gender equality has been gaining importance as the subordinate status of women in relation to men has been seen in almost every facets of life. This research work describes discrepancy in educational policies, employment initiatives and social norms which keep a larger portion of population deprived of rights. Policy recommendation of women empowerment and social restructuring is provided in the last segment.

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Gender Gap in Education - An Indian Human Capital Formation Concern

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Abstract- The divergence in gender counts amongst all countries has caused unrest in multinational platforms almost a decade ago. Gender equality and women empowerment is the third goal amongst eight most concerning causes as per united nation's millennium development goals. After years of policy intervention socio-economic situations have diverged to an extent that new goals and impact studies are required for further improvements. India has shown one of the best results in addressing all eight goals. However, inequality within Indian states has increased remarkably. The backwardness of women from these states is due to gender gap in almost all aspect of socio economic study. The concept of gender equality has been gaining importance as the subordinate status of women in relation to men has been seen in almost every facets of life. This research work describes discrepancy in educational policies, employment initiatives and social norms which keep a larger portion of population deprived of rights. Policy recommendation of women empowerment and social restructuring is provided in the last segment.

I. INTRODUCTION

Women are the worshiped gender in India. But in real life women are least valued outside temple thrones. The double standards for women in India has been the cause of social and economic deprivation of female. The Indian society has been traditionally exploitative towards female. Even after economic reforms these structural values have succeeded to pertain in contemporary times. The proportion of male children who are fully immunised is 4 per cent higher than female children. By the time girls are four years old, they are much more likely to be stunted or underweight than their brothers. In 2012, 58 per cent of all primary school children in the age group of 6-14 years were boys. (The Indian Express, 2015).

Many research have been conducted to study present status of women in Indian society but none have been effective to eradicate gender issues. Deprivation of women from education is one of the main cause behind lack of advancement in educational attainment. Gender gap in this research concerns difference between achievements of male and female in education sector. School enrolment in rural areas of India is significantly lower for girls than for boys in all age groups and disparity increases with age. Zimmermann (2011) suggests an inverse U-shaped pattern of school enrolment with age. Starting from six to nine year

enrolment rate increases but declines after ten years of age. After attaining adolescence age children are engaged in house hold work or they are engaged in economic activities. The opportunity cost of study increases forcing to greater drop out rates.

Empirical research shows on average Indian household resource allocated for education of boys is higher than girls across geographical areas and income levels. School expenditures on girls tend to be lower than those for boys, especially in private schools (Flimer and Pritchett 1999, Jejeebhoy 1993, Ramachandran 2002, Tilak 1996, Tilak 2002). Gender discrimination within a family shares low evidence, with only strong presence in 10-16 age group. Maccini and Yang 2009 and Qian 2008 found patterns of difference in resource allocation between son and daughters.

In deciding enrolment of their children parents often consider cost and benefit situation. The benefits from schooling includes increase in expected wages, potential marriage partners and more desirable socio economic status. Parents benefit in monetary terms as better educated children can take care of their parents in better ways. Elder children are considered substitutable for household works, farm work or temporary labour. The family forgoes all these benefits to education. Enrolment of girl child in school have higher ex post vulnerability to schools as parents allocate resources to boys first in scares situation (Zimmermann 2011).

Women's education is considered as the key for reducing favouritism against girls. Reality of women's life assures not only physical and emotional trauma, but severe economic hardship as well. Some studies show that educated mothers are far more "efficient" in decision making than uneducated mothers for their daughters. Child mortality rate shows positive relationship with maternal education attainments.

The wage gap is prominent in today's labour market as well. It leads to debate that men are more deserving than female or are they exploited? If the former is true then what has led to backwardness of women is also and concern. Felinity of women is at stake if she rules the typical male world. Less are the occasions when female leaders are used as parameters for male leaders.

International concerns of gender gap have not been elapsed yet. Although eight countries-Bahamas, Belize, Brazil, France, Guyana, Latvia, Namibia, and the

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Philippines-have fully closed the gap on both the health and education sub-indexes, no country has closed either the economic participation gap or the political empowerment gap as per World Economic Forum Report 2014.

Gary Becker's theory of human capital helps in understanding this gender situation. It suggests that an individual is compensated for the work he or she performs and also the individual's human capital.¹ The theory describes discontinuity from labour market cause of depreciation in human capital. Van Dyke proposes two theories for gender income gap, in supply side explanation possibility of difference in taste, qualifications, education, formal training or other productivity related characteristics is defined as cause of gender gap. Rational being women are more likely to invest in human capital that has low market return rather than men. In demand side theory discrimination of employer, employee or customer may lead to gender gap. Married women participation increases after pregnancy where as men decreases their participation after attaining responsibilities. Incentive to invest in training is directly proportional to one's intention to work in lifetime. Gender wage gap diminishes as male-female lifetime work expectations become similar. Work expectation is formed from training acquired in school and on job training. With a whole work life ahead investment in training pays off big time since returns reap for long time. The "present value"² of training is smaller in later on life as there are lesser opportunities to earn returns. All those who wish to grow further takes training. As per division of labour human capital theory within family due to stringent gender work patterns lesser women participate in economic activities. Male tend to work longer and maintain continuity in professional engagements due to which gender wage gap persists. Women in most cases have a gap in their career due to family needs. Thus lag behind men in pay increments and career growth. Education is the deciding factor for wage and hence determines wage gap. Low educational attainment of women leads to low returns. In cyclic causation education and earnings effect each other and till an external policy intervention occurs it becomes impossible to improve gender gap situation.

World economic forum's annual gender survey 2014 puts India at number 15 on the score card for political empowerment. India also tops the list of countries on the years with women head of state (in past

50 years). In overall ranking India slipped to 114 from 101 earlier in 2013. The main instruments behind this fall being decreasing female to male sex ratio at birth. The educational attainment gaps which have caused further discrepancy of economic participation and opportunity can be evaluated through wage gaps. However, for India wage data is unavailable in public domain. Hence proxies are utilized to provide overview of the situation. This slumps India to lowest ranked BRICK's nations and one of the few countries which are facing shrinking female labour. World economic forum predicts 81 years of positive sustainable growth for achieving gender parity.

II. LITERATURE REVIEW

Due to contemporary relevance numbers of reviews or surveys of gender wage gaps and its development have been concluded. Stanley and Jarrell (1998) as well as Jarrell and Stanley (2004) were the first to complement this survey literature with meta-analyses of gender wage differentials in the US. In studies which uses data sets of particular subgroups (to never-married workers, new entrants in the labour market, or workers in narrow occupations provides the researcher with a better comparability of the productivity of workers and hence shows lower gender wage gaps. The bulk of decline in gender wage gap is empirical attributed to better labour market endowments of females which came about by better education, training, and work attachment (Weichselbaumer & Winter-Ebmer, 2005).

In literature of gender wage gap economies of education theory have been used for explaining the diverse results. Initial contributions were by T. W. Schultz(1961a), Gary Becker (1964) and Mincer (1974) who treated education as investment rather than consumption. In these early theories long term growth perspective of education was established. The private value of education was discussed by Arrow (1973), Spence (1973) and Stiglitz (1975). Social value of education is lower than personal gain from education as discussed in these theories. Third phase of literature accepts education as a variable for endogenous growth and links with externalities. Contributed majorly by Lucas (1988) and Romer (1986, 1990). Education yields rate of return equal or above other investment for an individual. However, social effect of education can show ambiguous results. Social rate from education contains two major groups of returns, (a) cost and benefit of economy (tax and subsidy) (b) externalities (low corruption, crime etc). The social rate of education follows diminishing returns, i.e. higher level of education provides lower returns. This is particularly essential for policy makers as it implies the need for primary education over higher education. Higher education is usually specialized and skill training. Psacharopoulos (1989a) shows returns to education decline as human to

¹ Human capital consists of accumulated investments in education, job training etc. The more individual have invested in knowledge gathers the more valuable labour becomes. Compensation increases with capital accumulation.

² The discounted value of increased wages shows present value of human capital investment. The present value of any given investment diminishes as one gets older because number of years one expects to stay on job reaping returns from the investment is smaller for older individuals.

physical capital increases. It helps explain the large subsidy provided for primary education in countries which has poor conditions of higher education as well. The idea is of mass development and thus economy's skill set declines in quality although increases in quantity.

Many literatures argue men and women behave differently because of the difference in brain however no biological data is available to argue the same. It is assumed men are not good cook as cooking is a feminine work. But what defines a feminine work is an unstructured bunch of assumptions which have been imbibed in society. There is no logical or theoretical explanation which segregates activities. Most number of chefs who prepare most exquisite preparations is male gendered. Women in military defence or aggressive and strong jobs are termed as bad mothers by Indian society. However, no evidence could be collected to prove the same. There is much debate over ideal judgement of wage discrimination.

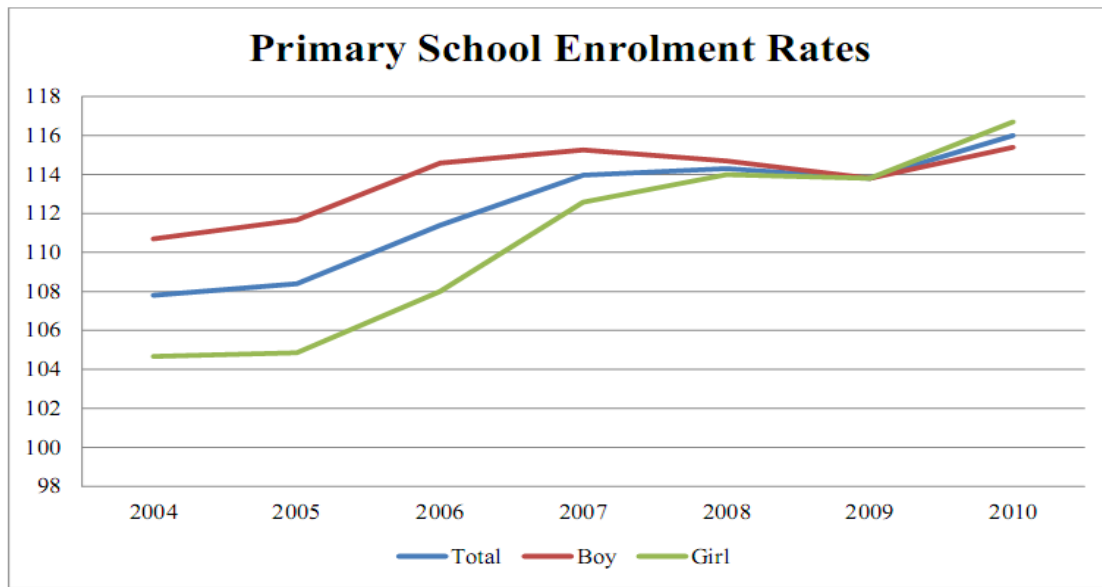
Women are commonly married young, quickly become mothers, and are then burdened by stringent domestic and financial responsibilities. They are frequently malnourished since women typically are the last member of a household to eat and the last to receive medical attention. Additionally, only 54 percent of Indian women are literate as compared to 76 percent of men.

Reasons for parental under-investment in female education are diverse and well-known (Aravind Subramanian, 2005). Social constrains are major hindrance for female participation in economic activities as well. This hence works in a cyclical causation pattern. Due to mental backwardness women are not exposed to education well enough. Lack of skills keeps women out of labour force. The low opportunity of employment works as motivation to keep women out of economic activities. Since no future benefit can be estimated families tend to dislike spending on female education. The valuation of education is in terms of consumption for female whereas investment in case of male. Low value of labour and market glitches for female creates obstacle for active participation by women.

III. ANALYSIS OF INDIAN SCENARIO

In Indian system both enrolments and drop outs from education are crucial to analyse. The number of enrolments have not seen significant increase in past years but the dropout rate is very high throughout. After 1980's national government have shown serious interest in educational enrolments specifically for women participations. Policies like New National Policy of Education (1986) and Programme of Action (1992) were targeted for six to fourteen year olds. Later as an initiative to accomplish United Nation's Millennium Development Goals Indian government took policies of

free textbooks and uniforms distribution, scholarships and mid-day meal in 2006. The mid-day meal programme was especially successful in raising enrolment rates in rural parts of India. But the same observation remains constant. In children of more than ten years school dropout rates were very high. As in these scenarios they are found more useful for household chores or economic activities. In rural India which still remains majorly an agricultural society seasonal employment occur for families children to solve the sudden need of extra labour. Alternative school timings have also shown positive results in increasing enrolments and give lesser reasons for drop out in mid schooling. Evidence suggests school expenditure for a child in rural India per year is rupees three hundred and forty (includes uniform, stationary and tuition fees) which is equivalent to fifteen days earning approximately in any part of India (Dreze 2003, Kingdom 2005). Due to low quality of education rural households also prefer education from private institutions which imposes cost burden on the family. Some households are likely to be credit constrained because they find themselves unable to borrow against future income to provide better education for their children. As the cost burden increases households are subjected to choose cost cutting methods to support priority expense. In most number of such situations male education is given more importance than female. Due to future expectations of shifting of responsibilities, parents consider sons to take care of them and take family forward. Whereas daughters are considered as "parayadhan" or someone else's belonging as their major contribution being building others family. Thus education cost for female are consumption expenditure rather than investment cost.



Source: Indiastat

Figure 1 : State wise primary school enrolment rates of India as per gender 2004-2010

In literature it has been established at various stage that in primary schooling age enrolment rates of male and female participants are unrelated. In figure 1 we see clear empirical evidence of gender gap in early stage of education during 2004-2008. It is only after 2008 when several policies like sarva shiksha abhiyan and mid-day meals were initiated gender gap diminishes in primary education enrolment rates. One year after convergence in participation evidence shows scope for further divergence. The reduction in gender gap in not a stable situation essentially. Lack of data in later year in public domain causes in lack of a clear picture. But in understanding Indian society's development it will be realistic to assume no drastic convergence in gender gap presently.

Although this research shows comfortable scenario in primary education we cannot eliminate its inability to predict impact on gender wage gap. Primary education considers basic learning through formal channel which ensures fundamental understanding of words or letters. This human capital skills cannot explain direct returns from education and probability of ensuring employment.

Each state of India shows similar pattern of change in between 2007-2013. All the states have increased their primary education index. Almost all the states have achieved to improve their primary education status from 2007 to 2013.

a) Primary Education Index

Based on composite evaluation of education situation we find a clear decline is standards of primary education in the country during 2007-2009. The situation seems to have recovered in 2012-13, for states like Daman & Diu, Delhi, Goa, Gujarat, Haryana, Kerala,

Maharashtra, Andhra Pradesh and Andaman & Nicobar Island. In few cases we find the primary education index dropping further. States of Arunachal Pradesh, Assam, Bihar, Uttar Pradesh and West Bengal etc shows irrecoverable decline in primary education.

The educational policies have not been able to achieve the expected benefits. This lack of education further leads to social and economic issues. The huge employment gap is a remote respect of lack in educational attainments. In most of cases the social issue like theft, rape etc have grave connection to lack of education.

Most north eastern states, West Bengal, Bihar, Haryana shows lowest education index. Ranking of primary education is as per Ministry of Human resource development accounting. During 2007-13, many region shows volatile transition and in few states there is negligible changes of primary education ranking.

b) Rank of Primary Education Attainment

The highest increase of primary education rank is in Goa followed by Gujarat, Haryana and Uttar Pradesh. Maharashtra and Manipur has worse situation in 2012-13. In many states there is lack of changes in rank like Odisha, Puducherry, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttarakhand, Dadara and Nagar Haveli, Jharkhand, Lakshadweep, Madhya Pradesh, Chattisgarh shows constant increase of ranking. In case of Arunachal Pradesh, ranking increases during 2007-09 but decreases massively during 2012-2013. Similar situation for Assam, Chattisgarh, Karnataka, Mizoram same situation is observed.

In secondary and senior secondary levels of education dropout rates of girls are argued to be very high. This is also shown as prime reason of educational

gap amongst gender. Social laws and cultural values are the root cause of this dropout rates in most of the states. Although in few states poverty becomes even more concerning issue for dropout rates. By drop out measures states of Haryana, Rajasthan, and Bihar etc do not show much deterioration. This is due to the low enrolment rates at the first place. So few girls are enrolled in primary education (see Fig. 3) and also these girls either belong from higher socio economic class or there are exogenous factor helping them. On an approximate 6 per cent less girl enrol in secondary and senior secondary level education in India.

c) *Gross Enrolment Ratio of Boys and Girls (in %) 2011*

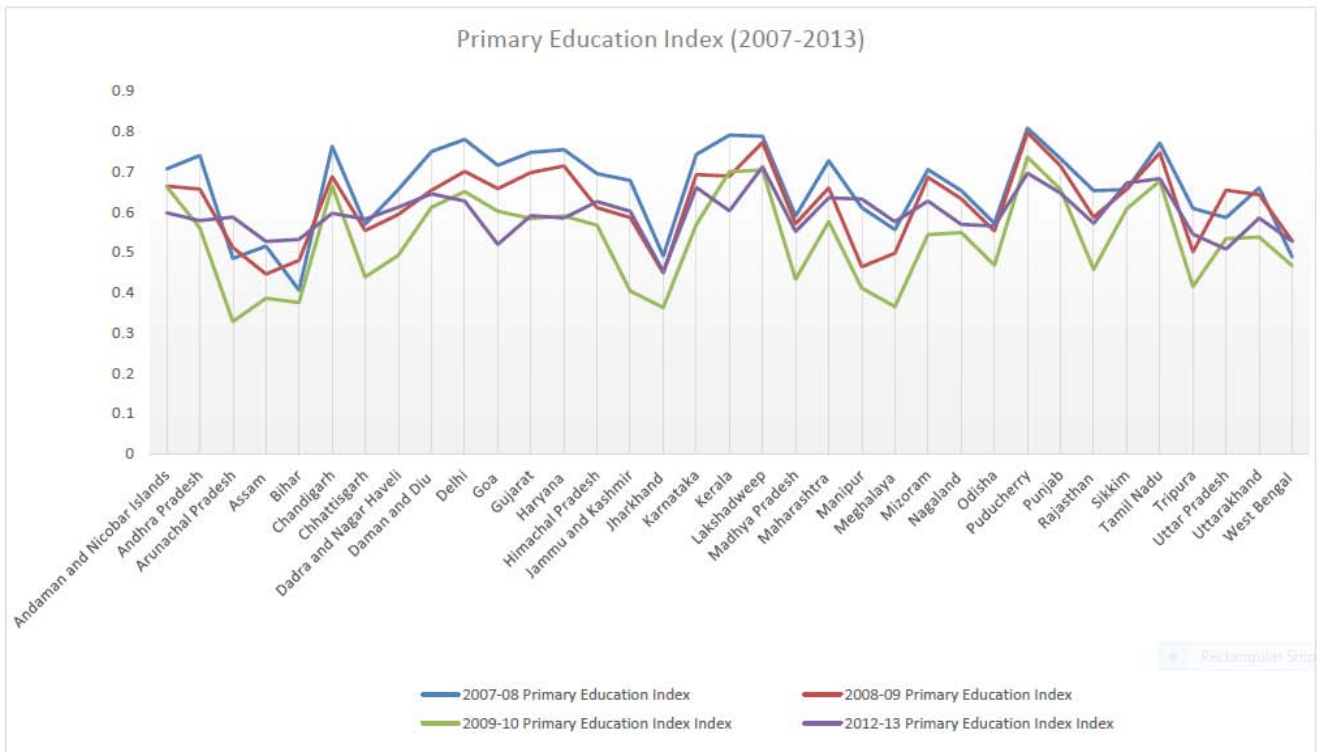
Minority segments are provided special privileges for their backwardness in social development. Figure. Shows an almost same situation for general and scheduled class boys and girls. In case of scheduled tribe the gross enrolment rates of boys are approximately 10 per cent higher than girls. The tribes are located in less connected places and social development is rate is fragile. Tribal areas are also subjected to terrorist activities and political turmoil. All these social and political hindrances have restrained growth of the community. (See Fig. 4)

d) *Gender parity Index 2013*

This index helps in understanding how well education proximity are for the genders in any state. Gender parity index shows in a scale of 10 how we; coordinated gender gap prevails. Daman and Diu

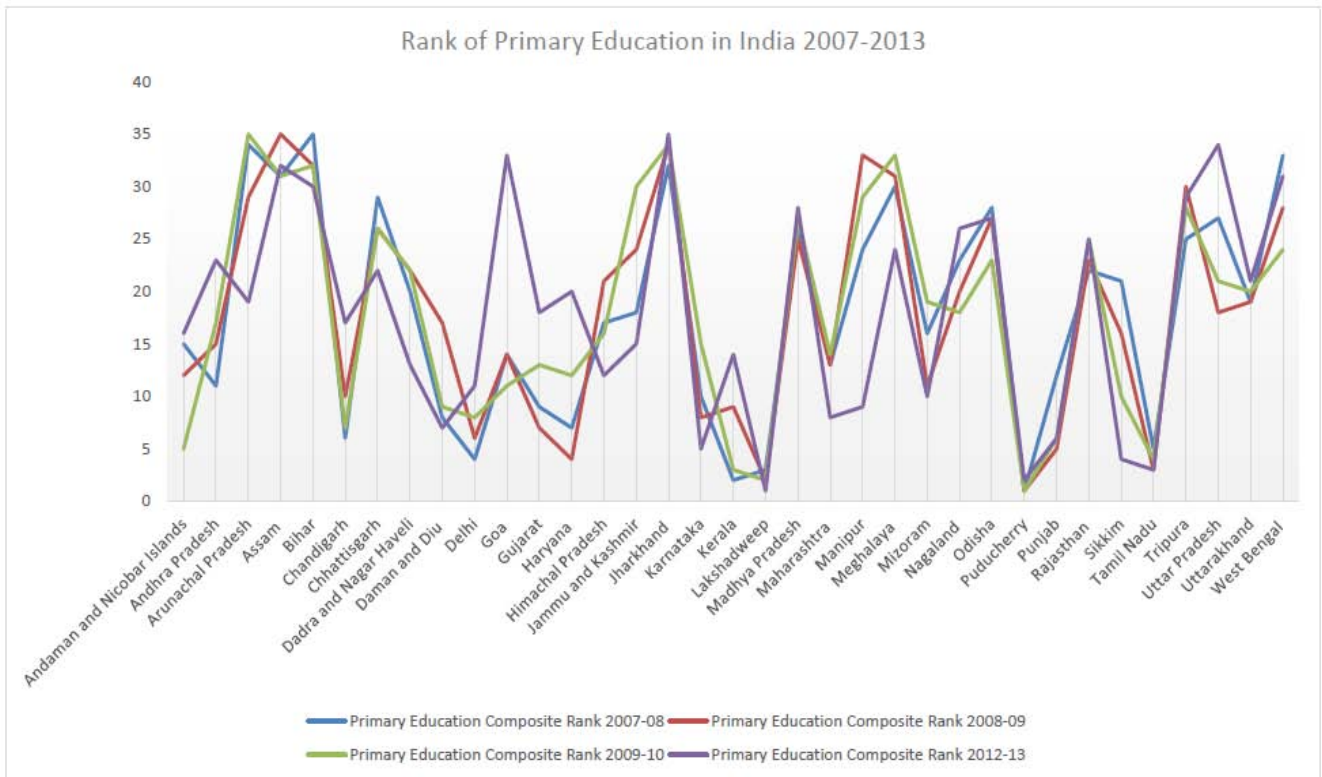
shows maximum gender parity index value of more than 2. After a huge margin Andaman and Nicobar islands, Dadra and Nagar Haveli, Goa, Kerala, Meghalaya, Uttar Pradesh and Uttarakhand. Arunachal radish is closest to 0.5 scale and states of Nagaland, Punjab are in the lowest in gender parity. Figure 5 also helps in understanding differences in gender parity in between states. The overall scenario as described before fails to show real picture. The less developed north eastern states shares gender parity around 0.7 or 70 per cent. Higher economically developed states have greater gender parity in education, Similar to previous situation Goa scores high in education index.

Eastern states of West Bengal, Odisha, Jharkhand and Bihar shows closer results or less with in group disparity. Western states Punjab, Rajasthan and Gujarat also shows similar situations. Himachal Pradesh and Haryana shows big difference on gender parity index with Haryana scoring of the lowest gender parity in education. The high rates of female feticides, violence against women and insecurity is also related to average educational attainment of society. Financial capital of India, Mumbai scores highest in gender parity within Maharashtra but on over all values Maharashtra scores far below then neighbouring competitor Kerala. Karnataka although houses IT hub of India , but state's performance in gender parity for education shows similar score of north eastern states who are far below than Karnataka in terms of revenue earnings.



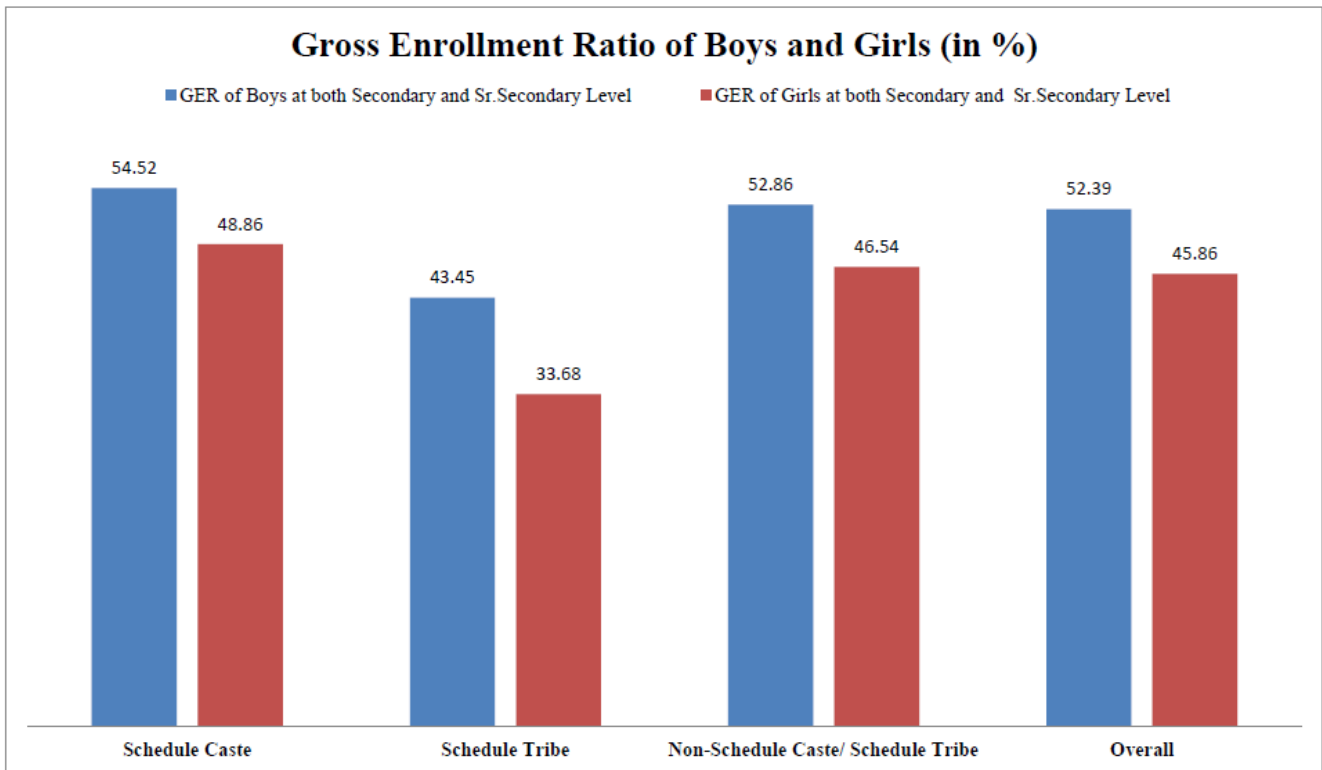
Source: Indiastat

Figure 2 : State Wise Primary Education Index of India as Per Gender 2007-2013



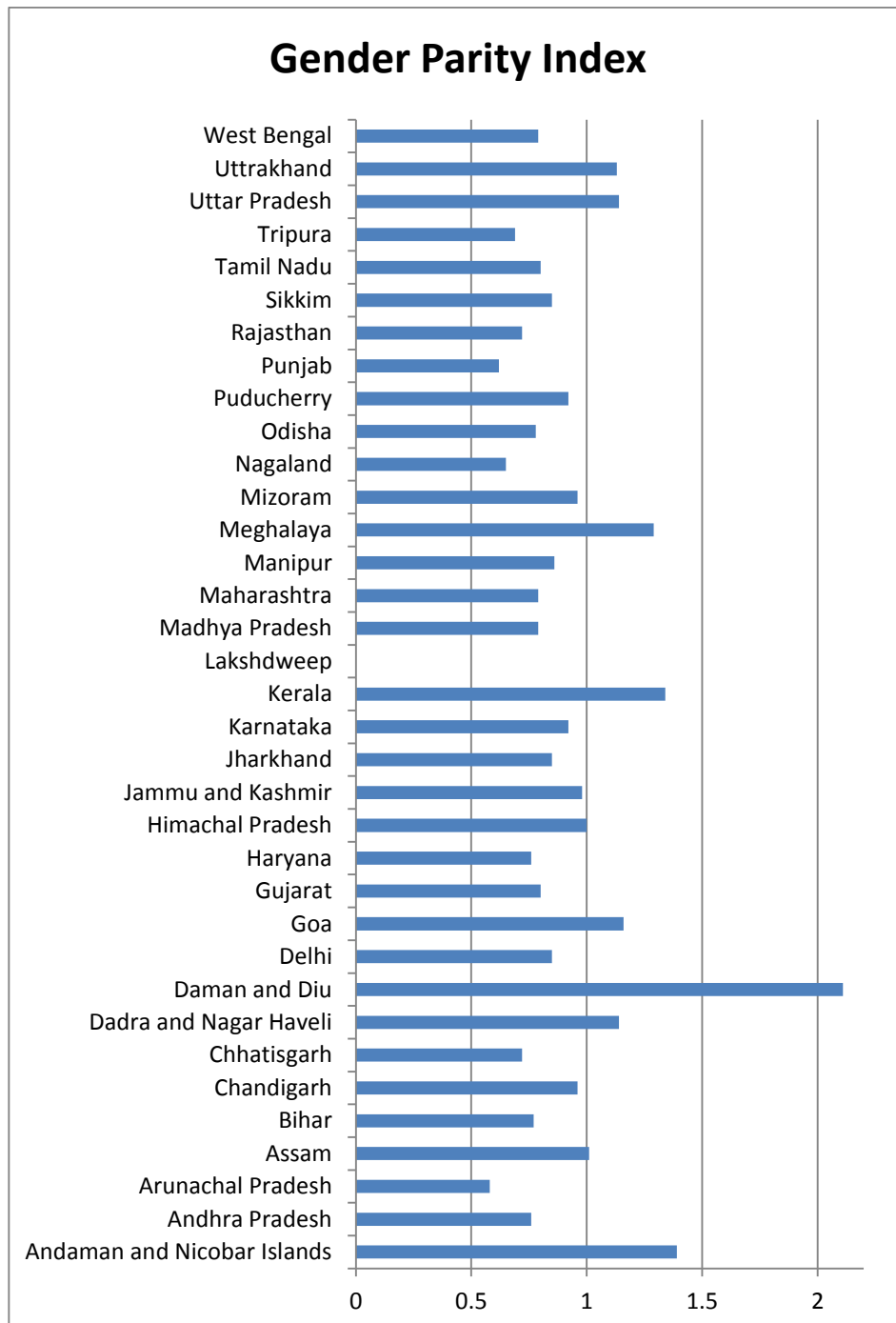
Source: Indiatat

Figure 3 : State Wise Rank of Primary Education in India 2007-2013



Source: Ministry of Human Resource Department, Government of India

Figure 4 : Gross Enrolment Ratio of Boys and Girls (in %) 2011



Source: Government of India

Figure 5 : Gender Parity Index 2013

IV. MYTHS AND SOCIAL CONSTRUCT

The gender stereotyping starts when a girl is born. A few of them are as follows:

- A girl is soft, a boy is tough, and hence a girl won't be able to survive in the world without a man.
- A girl is good in arts and literature, and boys are good at math and physics. In India in Class XII boards most of the toppers for science subjects are

girls. However, the bias continues in engineering colleges, where numbers of women are less.

- Women are not competitive, lack killer instinct and are emotional in nature. Hence, cannot be successful in the business world. Globally the number of women at board level in corporate world is less than 10%.

Myth is 'real' women do not do math. Math is a male thing; girls are much less apt than equally talented

boys to go into math related careers. There is a sex linked math gene which makes male better in maths. Parents also have lower expectations for girls in maths and science. Female teachers increase teaching efficiency for girl students. Role models should be from same sex is also a myth which divides interest groups.

Things are assumed to be same for case of girls in all races. However, due to different social constructs should be considered in case of females as considered in male.

Girls are discriminated not only at the womb but later on in situations of opportunities as well. Access to education is also different for female and male. Education is one of the most important opportunities in nay society. Office positions, political powers and social recognition are attached with higher level of education. In rural India girls are seldom allowed to attend school. Even in those rare occasions, girls are dropped out of school so that her brother gets better facility and she in the meantime can help in household or economic activities. Girls are converted into labour for their male sibling's future. Parents are willing to let their daughters drop out as son's education is an investment. In many cases it is the only hope for the family to secure old age and eliminate poverty. On the contrary evidence shows people in old age home claims of always being cheated by their sons and not by their daughter. Marriage affects parent's decision making. Indian religious and social educates requires the bride to be transferred to stay with in-laws' family. In almost all occasions the bride bears duties of two families and seldom gets rights of any.

The conception or misconception that girls do not need education and/or school education is irrelevant to girls. Lack of women teachers, separate schools, adequate and clean toilets in schools, transport facilities to school, crime rates on road these all inhibits parents from getting girls enrolled. The early marriage and early pregnancy caused drop outs from educations.

The women are likely to work fewer hours than men, which would make a gap in weekly earnings between the two groups substantial even if the hourly wages are same. Many studies prove that educational attainment, work experience and occupational choice contribute to the gender wage gap. Although the educational 'up gradation' have successfully helped in narrowing gaps but the additional issues like pregnancy, family responsibility and most important social norms do not let gender segregations to vanish. One study shows that due to weaker labour force attachments of women than men, women are assigned positions lower than men. Hence, it disagree with human capital theorists who propagates differences in efficiency only leads to difference in pay as well as productivity and all similarly productive humans are paid equivalently.

Men have not faced the negative impact of such twisted logic. However, women still face the challenges of typecasting. A woman breaks the conventional myths,

she is said to be masculine. Take the example of Indira Gandhi, Ex-Prime Minister of India. She served as a Prime Minister for 4 sessions to talling to 15 years and is globally the longest serving female Prime Minster. She was called as the only man wearing trousers in her cabinet. Margaret Thatcher was dubbed as the "Iron Lady" by Russia. She gave an excellent rebuttal to it in her speech in Finchley in 1976. (Minow 2015)

As described in best-selling book *Lean In: Women, Work and the Will to Lead*, Sheryl Sandberg the problem of increasing women's participation as "the ultimate chicken-and-egg situation": "The chicken: Women will tear down the external barriers once we achieve leadership roles [...] the egg: We need to eliminate the external barriers to get women into those roles in the first place."³

In Rajasthan, all of these problems are aggravated by high levels of seasonal migration. For many men in Rajasthan, migration is required since rural parts of Rajasthan often lack a sufficient economy to provide income for a family year-round. Women are commonly left behind to care and provide for the entire household (Fsdinternational.org).

V. ALTERNATIVES

US announced an 'equal pay application' challenge asking for help in building innovative tools to educate the public about the pay gap and promote equal pay for women. To help the challenge 'salary.com' is releasing a collection of salary data for 4,000 jobs. Knowledge of jobs pay is an integral part of negotiation. Public data cannot be claimed by employers as false. So the application allows employees to find about salary information that can help in closeting the gap. Although it won't address the whole issue several political interventions are required simultaneously.

In many cases 'child care support' system have been helpful as well. In many situations it is found that female worker's careers are disrupted because of child care failure- and these workers are usually women (Hofferth & Collins 2000). The female workers when re-join are given less credentials and stay devoid of growth in career due to expected interruption of work.

Protection remains a concern in women all over world. Labour laws claims no women can be engaged in professional duties after 7 P.M. and if so can only be allowed on written applications by the individual beforehand. In such scenario it is crucial to arrange efficient social protection programmes for safety of women. This will provide a less hostile working option for female. A safer opportunity will be appreciated by more women and less human capital will be loosed out due to social cause. Active politicians and social activities can help in reduction of social constraints.

³ Sandberg, Sheryl (2013). *Lean In: Women, Work and the Will to Lead*. New York: Alfred A Knopf.

Scholarship to women can also act as a motivation to induce higher degrees by women. Financial help leads to concentration of decision making power. If family do not have to invest money on education of girl child they have lesser interest in keeping female devoid of education. Scholarship is an achievement in competition and helps in creating confidence and ambition. The good work done by NGO's and self-help groups should be acknowledged in front of common people. This will influence people with vision and interest to join the change making. It is very important the need for change is understood by the effected people. If loss is understood by individuals seldom is the tendency to ignore elimination of cause.

REFERENCES RÉFÉRENCES REFERENCIAS

1. Becker, Gary S. *The Economics of Discrimination*. 2nd edition. Chicago: The University of Chicago Press, 1971.
2. Becker, Gary S. *Human Capital*. 3rd edition. Chicago: The University of Chicago Press, 1993.
3. Burra, Neera, 'Cultural Stereotypes and Household Behaviour: Girl Child Labour in India,' *Economic and Political Weekly* 36(2001), 481-488.
4. Caldwell, John C., P.H. Reddy, and Pat Caldwell, 'Educational Transition in Rural South India,' *Population and Development Review* 11(1985), 29-51.
5. Dreze, Jean, 'Patterns of Literacy and Their Social Context,' (pp. 974-997), in Veena Das (Ed.), *The Oxford India Companion of Sociology and Social Anthropology Vol II* (New Delhi: Oxford University Press, 2003).
6. Dreze, Jean and Geeta Gandhi Kingdon, 'School Participation in Rural India,' *Review of Development Economics* 5(2001), 1-24.
7. Filmer, Deon and Lant Pritchett, 'Educational Enrolment and Attainment in India: Household, Wealth, Gender, Village and State Effects,' *Journal of Educational Planning and Administration* 13(1999), 135-164.
8. Fsdinternational.org. 'Gender Equity Issues In India'. N.p., 2015. Web. 28 Jan. 2015.
9. Government of India, Department of Elementary Education and Literacy, Department of Secondary and Higher Education, Ministry of Human Resource Development, *Annual Report 2005-06* (2006).
10. Jejeebhoy, Shireen J., 'Family Size, Outcomes for Children, and Gender Disparities,' *Economic and Political Weekly* 28(1993), 1811-1821.
11. Kingdon, Geeta Gandhi, 'Where Has All the Bias Gone? Detecting Gender Bias in the Intra household Allocation of Educational Expenditure,' *Economic Development and Cultural Change* 53(2005), 409-451.
12. Lucas, Robert, 'ON THE MECHANICS OF ECONOMIC DEVELOPMENT' *Journal of Monetary Economics* 22 (1988) 3-42. North-Holland.
13. Maccini, Sharon, and Dean Yang, 'Under the Weather: Health, Schooling, and Economic Consequences of Early-Life Rainfall,' *American Economic Review* 99(2009), 1006-1026.
14. Minow, Martha L. 'Gender Stereotypes & Myths About Women'. Sonia Jaspal's Risk Board. N.p., 2011. Web. 30 Jan. 2015.
15. Weichselbaumer, D., & Winter-Ebmer, R. (2005). A meta-analysis of the international gender wage gap. *JOURNAL OF ECONOMIC SURVEYS* , Vol. 19, No. 3.
16. Kingdon, Geeta Gandhi, 'The Progress of School Education in India,' *Oxford Review of Economic Policy* 23(2007), 168-195.
17. Qian, Nancy, 'Missing Women and the Price of Tea in China: The Effect of Sex Specific Earnings on Sex Imbalance,' *Quarterly Journal of Economics* 123(2008), 1251-1285.
18. Ramachandran, Vimala, *Gender and Social Equity in Primary Education: Hierarchies of Access* (New Delhi: Sage Publications, 2004).
19. Romer, Paul, 'Increasing Returns and Long-Run Growth' *The Journal of Political Economy*, Vol. 94, No. 5. (Oct., 1986), pp. 1002-1037.
20. Stanley, T.D., Jarell, Stephen, 'Declining Bias and Gender Wage Discrimination? A Meta-Regression Analysis' *The Journal of Human Resources*.
21. Schultz, Theodore, 'Education and Productivity' *National Commission on Productivity*, Washington, D. C. Spence, Michael, 'Job Market Signalling' *The Quarterly Journal of Economics*, Vol. 87, No. 3. (Aug., 1973), pp. 355-374.
22. Stiglitz, Joseph, 'The Theory of "Screening," Education, and the Distribution of Income' *The American Economic Review*, Vol. 65, No. 3(Jun., 1975), 283-300.
23. Tilak, Jandhyala B. J., 'How Free is Free Primary Education in India?,' *Economic and Political Weekly* 31(1996), 275-282.
24. Tilak, Jandhyala B. G., 'Determinants of Household Expenditure on Education in Rural India,' *NCAER Working Paper no.88* (2002).
25. Van Dyke, Jennifer. "Does it Pay to be a Man? A Study of Pay Differentials Between College Graduates." *Research Honors Project*, Illinois Wesleyan University. April 1999.
26. Zimmermann, Laura. 'Remember When It Rained: The Elusiveness of Gender Discrimination in Indian School Enrolment' *University of Michigan* 2011.

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