



Educational Attainment Of Children: A Gender Sensitive Empirical Study In Hailakandi District Of Assam

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Abstract: Gender Discrimination in Education is a serious Socio-economic issue to be analysed from the view point of human capital formation in the light of egalitarian norms for both male and female around the globe. Discrimination in terms of gender in educational accessibility and attainment is a hindrance to balanced development of a nation as well empowerment of women. It refers to a tendency to favour either male or female in accessing and attaining education in a given situation. However, it has been found that girls are the victims of such discrimination in different contexts and no studies have been conducted on gender based educational discrimination in the context of Hailakandi district of Assam, one of the backward most district of Assam. This study has been undertaken in Hailakandi District of Assam. The study basically focuses on analysing the relative enrolment status of school going girls from primary to higher secondary level along with investigating the causes responsible for gender discrimination in education by using Logistic Regression model. The study found that, girls have lower rate of enrolment compared to boys especially from upper primary level onwards. Moreover, factors like economic condition of households, Parent's reading of newspaper, Family size, Parental attitude, involvement of children in farm and domestic works etc. are mainly responsible for gender discrimination in education.

Keywords: Gender Discrimination, Household's Economic Condition, Logistic Regression, Parent's Outside Mobility, Sopher's Index.

Introduction:

Education is considered as an important instrument to develop human resource of a country. In fact, it is the driving force or key component to create human capital in the economy. Education is a crucial factor to develop the ability of a person to work as per the change occurs in the socio-economic aspects of any country. Gender discrimination in education is a tendency to favour the male or female child in a given situation in case of educational accessibility and provision of educational supports on the part of parents. Significance of studying gender discrimination in education lies in the fact that, existence of such deep rooted problem causes the birth of several other problems in the society. The balanced development in the socio-cultural context largely depends on the activities free from gender discrimination. Since the two genders are the creation of Almighty, it is quite irrational and illogical to discriminate in availing or offering any opportunity in terms of

gender. In fact, it can be said that, education is not only beneficial to the individual level rather it is widely beneficial at the societal level that provides positive spill over effects (Schultz, 1961). Gender discrimination has been a vital and emerging issue so far as human history is concerned. Gender discrimination in education ultimately refers to the discrimination on the basis of sex of the children in educational aspects (Jha & Nagar, 2015). According to the literature of economics of education, two most important aspects that cause gender discrimination in education are firstly the low rate of employment of women which works as a disincentive for parents to spend money for girl's education. The second aspect is the treatment of son as the future earner in the family which encourages parents to spend more money for their sons compared to daughters. If education is not equally accessed by male and female, further disparities in the many different dimensions will arise with a variety of implications. It can thus be said that, inequality in treatment of both the genders is a crucial reason behind the existence of gender disparity and discrimination in education in the society (Kingdon, 2001).

The problem of gender discrimination in our society is a vital issue which has long lasting impact on the smooth way of development. The said problem is so chronic that once it is started, it becomes difficult to overcome the same easily. When discrimination starts at the time of birth against a female infant, it further becomes prevalent in the educational context unless such attitude is replaced by an equity-based attitude both in the family and societal level.

The existing literature supports the point that, the gender discrimination in education has become a large-scale tendency among the school going children, the nature and the extent of it requires further investigation with heterogeneous data sets representing different levels of education. Realizing the importance of reducing gender discrimination in education, the present study has been undertaken in Hailakandi district of Assam. The objectives of the Study are- To examine the gender-based enrolment status of school going children from primary to higher secondary level of education, to construct a gender disparity index and to investigate the extent of gender discrimination in education among the children of school going age and to investigate the causes responsible for gender discrimination in education among the school going children.

Review of Literature:

Socio cultural influences like parental expectation, variations in teachers' responses and discriminatory counselling are highly responsible for gender differences in education. Division of labour, stratification, social control and norms and relationship among these elements are common in gender discrimination in education (Goetz & Grant, 1988). Women receive less education than men and show that, systematic gender differences in educational investments may arise as an optimal response to biological differences between men and women. Since the time cost of women having children increases with the number of children, the gender gap in education level increases with fertility (Echevaarria & Merlo, 1999). Girls face significantly different treatment in the intra household allocation of education. When the labour market rewards women education less than men, girls face

poorer economic incentives to invest in schooling (Kingdon, 2001). Family background characteristics; particularly parent's level of education have a significant effect on education of children but different for both boys and girls. In many parts of the world, girls receive less education than boys on the average. Social structures, religion, institutions and level of economic development jointly constitute barriers to the education of girls (Mehtap, 2002). Institutional factors such as distance from home to school, lack of secondary school within the district, the school schedules and the weak school community are the major barriers for the low primary school participation of girls. The socio-cultural factors responsible for gender discrimination in education are-early marriage, early pregnancy, fear of sexual harassment and rape, parents' preference for educating their boys rather than girls, narrow perception of the community towards girl's education etc. (Zelege, 2004). Birth order has a significantly positive effect on the probability of schooling. The eldest sons are widely thought to be given preference and education. Children are more likely to go to school if their elder siblings are girls and less likely if their siblings are boys (Ota & Moffat, 2007). Income growth and improvements in parents' education contribute positively to children schooling attainment and affect positively the girls. When parents have different preferences for their son's and daughter's level of schooling, it causes a gender specific demand function for schooling both for girls and boys (Goksel, 2009). Large family size exerts a negative influence on education of children. When family size grows, children are considered for earning but not for learning in schools. Age of children, Sex along with previous attainment of concepts have been found to influence school attainment in a positively significant way (Lincove, 2009). Family income or wealth, parental education, empowerment and education of mother, credit constraints, age of the child, family size or presence of siblings, place of residence and school infrastructure etc. influence gender discrimination in education (Hussain, 2010). Parents' spend less on female's education than her male Counterpart which clearly indicates that parents have a negative attitude towards their girl child which is stronger in rural areas compared to urban areas. Financial constraint and participating in economic activities affect more the male's education. However, far away school and to look after younger siblings affects more on female's education (Ghose, 2011). On account of long walking distance from home to schools and colleges, girls could not participate in educational process actively. The major reason behind dropout of girls' student has been found the poverty for which parents forced their children to work outside to earn money (Booth, 2014). Households having a greater number of children show low average educational attainment in the family. Parents allocate more resources for education of boys compared to girls. Those girls living with parents found to have attained more average education. However, boys having more education could bear more familial expenditure. Sex composition of children affects negatively the girl but not boys (Zheng, 2015). Gender discrimination in education is influenced by three major factors like, gender, socio economic conditions and quality of school environment. Among the socio-economic conditions, the two indicators like education level of parents and the family income have been found to be significant in

educational achievements of girls. It has also been found that, educated parents provided more money for educating their daughters (Eres, 2016).

Data Source and Methodology:

The study is based on primary data collected from the villages of four revenue circles of Hailakandi district namely, Algapur, Hailakandi, Lala and Katlicherra revenue circles along with three urban areas namely, Hindustan Paper Corporation (HPC) Township, Hailakandi Municipality area and Lala Town Area. The purposive random sampling method has been used to collect data from the target group of households having children of the age group 5 years to 18 years i.e., the children studying from lower primary to higher secondary level of education. Total sample size is 383 households comprising of 283 households from rural area and 100 households from urban area of Hailakandi district.

For sample data analysis in the study, tabular presentation is used. Further to meet the objectives of the study, Sopher’s disparity index has been used. Moreover, to investigate the causes responsible for gender discrimination in education, a logistic regression model has been constructed and analysed with a dependent binary variable and a set of independent variables.

Sopher’s Variety Disparity Index:

In the present study, we have estimated the Sopher’s index D_s for five age groups of children which are- Overall age group 5-18 Years, 5-10 years, 11-13 years, 14-16 years & 17-18 years of age group. Sopher’s Index as used by Chaubey & Chaubey (1998) and redefined for the present study is given below-

$$D_s = \log \left(\frac{E_2}{E_1} \right) + \log \left(\frac{e_1}{e_2} \right) \dots\dots\dots (1)$$

Where, D_s = Sopher’s Disparity Index,

Where, E_i = Ratio of School enrolled Children for each group boys and Girls.

$e_i = (1 - E_i)$ = Number of children not enrolled in section S_i

Equation (1) can be represented as-

$$D_s = \log \left(\frac{E_2}{E_1} \right) + \log \left(\frac{1-E_1}{1-E_2} \right) ; \dots\dots\dots (2)$$

From equation (2) it is seen that the minimum value of D_s is zero while maximum value approaches to infinity.

Model- 1: Logistic Regression model to investigate the Causes Responsible for Gender Disparity and Discrimination in Education among School Going Children.

The dependent variable of the model is denoted as PECE= Parent's Expectation for Children's Education. It is binary i.e. taking Value $W_i=1$ if parents expect the same level of education to be given for both son and daughters and $W_i=0$ otherwise.

Denoting $E(W_i)=m$ for simplicity and solving for $(\alpha + \beta x_i)$ we derive the model as-

$$\log\left(\frac{m_i}{1-m_i}\right) = \alpha + \beta x_i$$

All the logarithms are natural logarithms and $\frac{m_i}{1-m_i}$ is the odds ratio of $W_i = 1$ against $W_i = 0$.

The set of explanatory variables used in this logistic regression model are-

FE=Father's Education (in years), ME= Mother's Education (in years), HHI= Household's Income (in Rupees annual), FS= Family Size (in numbers), RESI= Residence (dummy, assuming value 1 if the household is located in rural areas; 0 otherwise) , FA= Father's Age (in years), MA= Mother's Age (in years), POM= Parent's Outside Mobility Score (in numbers Many times=2, Few times=1, Never=0), ECC= Economic Condition(dummy variable assuming 1 if the household is Above Poverty Line, 0 otherwise) GAAS= Guests Arrival and Sitting(dummy variable assuming 1 if Male-female guests sit in different rooms, 0 otherwise), FBWUW= Father's Belief about Unpaid Women Works(dummy variable assuming 1 if father believe that women should join in unpaid works, 0 otherwise), PBBP= Parents Belief about Bride Price(dummy variable assuming 1 if parents believe in bride price, 0 otherwise) , FSRCE= Father's Sole Responsibility about Children's Education(dummy variable assuming 1 if father is solely responsible for taking decision about children's education, 0 otherwise), PRNP= Parent's Read News Paper (dummy variable assuming 1 if both parents regularly read newspaper, 0 otherwise), SHDW= Son Helps in Domestic Works(dummy variable assuming 1 if the son helps in domestic work, 0 otherwise), SHFW= Son Helps in Farm Works (dummy variable assuming 1 if the son helps in Farm work, 0 otherwise), DHDW= Daughter Helps in Domestic Works (dummy variable assuming 1 if the Daughter helps in domestic work, 0 otherwise), DHFW= Daughter Helps in Farm Works (dummy variable assuming 1 if the Daughter helps in Farm work, 0 otherwise).

Results and Findings:

Result of Gender Based Enrolment Status of School Going Children

Table 1: Gender Wise Enrolment of Children

Classes	Boy's Enrolment	Girl's Enrolment
I-V	183 (35.33%)	183 (40.31%)
VI-VIII	135 (26.06%)	95 (20.91%)
IX-X	143 (27.61%)	137 (30.18%)
XI-XII	57 (11%)	39 (8.59%)

Source: Field Survey, Figure in the parentheses indicate percentage to total

Table 1 presents the gender-based enrolment status of boys and girls in the study area. It is seen from the table that; girls are discriminated in enrolment in case of upper primary and higher secondary level of education. On the other side boys are discriminated in the enrolment of lower primary and secondary level of education. In the lower primary and secondary section, 40.31% and 30.18% girls are enrolled compared to 35.33% and 27.61% boy's enrolment in these two sections. It is also seen that, in the Upper primary and higher secondary sections, boy's enrolment is 26.06% and 11% compared to 20.91% and 8.59% of girl's enrolment in these two sections.

Results of Gender Based Disparity Index (Sopher's Index)

Table 2: Result of Sopher's Index of Disparity

Age Group	Ds
Over all (5-18) years	0.30 (30.22)
5-10 years	1.74 (173.99)
11-13 years	2.02 (202.22)
14-16 years	0.43 (42.74)
17-18 years	0.36 (36.32)

Source: Researcher's own calculation based on primary data, Figure in the parentheses indicate percentage to total

From the table 2 it is clearly seen that; highest disparity has been found in the gender-based enrolment of boys and girls in the age group of 11-13 years of age as evident by Ds value of 2.02. It implies that, the extent of disparity is much wider in the enrolment of children in Upper Primary section. The lowest disparity has been found in the enrolment of boys and girls in the age group of 17-18 years of age as evident by Ds value of 0.36. It implies that, the extent of disparity is much lower in the enrolment of children in higher secondary section.

Variables	B	S.E.	Wald	df	Sig.	Exp(B)
FE	.076	.056	1.835	1	.175	1.079
ME	-.078	.063	1.524	1	.217	.925
HHI	.000	.000	.236	1	.627	1.000
FS	-.540	.197	7.497	1	.006	.582
RESI	.339	.392	.747	1	.387	1.403
FA	-.009	.052	.028	1	.867	.991
MA	.047	.052	.802	1	.371	1.048
POM	.057	.106	.295	1	.587	1.059
ECC	.910	.454	4.011	1	.045	2.484
GAAS	-.727	.321	5.124	1	.024	.483
FBWUW	.476	.541	.774	1	.379	1.609

	PBBP	-.462	.600	.594	1	.441	.630
	FSRCE	.435	.630	.477	1	.490	1.545
	PRNP	.719	.419	2.940	1	.086	2.053
	SHDW	-4.090	1.329	9.477	1	.002	.017
	SHFW	1.258	.625	4.046	1	.044	3.518
	DHDW	.545	.471	1.335	1	.248	1.724
	DHFW	1.588	1.107	2.059	1	.151	4.894
	Constant	-.649	1.480	.192	1	.661	.523

Table 3: Result of Logistic Regression Model

Source: Researcher' sown calculation based on primary data Dependent Variable= PECE
-2loglikelihood= 315.132, Cox & Snell R Square= 0.205, Nagelkerke R Square= 0.315

As seen from the table 3, the variables which positively influence the dependent variable PECE are ECC, PNRP and SHFW and variables like FS, GASS and SHDW exerts negative influence on the dependent variable. It implies when the family is living Above Poverty Line implying the more investible capacity on education of children, gender discrimination in education falls, parents' regular newspaper reading makes them conscious about ill effects of discrimination which also leads to reduction of gender discrimination in education. Moreover, it is also found from the study that, when the son helps in farm work implying the increasing earning of the family, it reduces gender discrimination in education.

On the other side, it is found that, large family size and engagement of boys in domestic works increases gender discrimination in education. Moreover, if the parental attitude is discriminatory in treating male and female differently, it also increases gender discrimination in the said context. The model has been found to be good fit as evident from the values of Cox & Snell R Square and Nagelkerke R Square shown at the end of the table 5.3.

Summary of Findings:

- (i) Boy's enrolment is relatively more in the upper primary and higher secondary section compared to girls in the study area.
- (ii) Girl's enrolment is relatively more in the Lower primary and secondary section compared to boys in the study area.
- (i) Highest disparity has been found in the gender-based enrolment of boys and girls in the age group of 11-13 years of age.
- (ii) It implies that, the extent of disparity is much wider in the enrolment of children in Upper Primary section.
- (iii) The lowest disparity has been found in the enrolment of boys and girls in the age group of 17-18 years of age.
- (iv) It implies that, the extent of disparity is much lower in the enrolment of children in higher secondary section.
- (v) APL Household condition, Parents newspaper reading and involvement of son in farm work reduces the tendency of gender discrimination in education.

(vi) Large Family Size, parent's discriminatory attitude and involvement of son in domestic work increases the tendency of gender discrimination in education.

Conclusion and Policy Suggestions:

From the study, it is found that, gender disparity in enrolment of children both in terms of classes and age levels still exists in Hailakandi district. This kind of gender-based disparity is the outcome of gender discrimination in education. It is evident from the study that, gender disparity in enrolment is not completely against either boys or girls rather it is against as well in favour of both the genders. This clearly indicates the wide extent of prevailing gender-based disparity in education in Hailakandi district. Moreover, the nature of disparity in education is such that it affects both the genders though in different rates. Logistic regression model has been found to be a good fit model and the results are in the expected lines. Factors like familial economic condition and parent's outlook helps to reduce the gender discrimination in education. While on the other side, parental discriminatory attitude and burden of large family size boost up the gender discriminatory tendency in education among the children of School going age in the Hailakandi district.

Thus, on account of prevailing gender discrimination and disparity in the context of education in Hailakandi district, it is recommended that, parents must take necessary step to offer educational opportunities to their son and daughters in a non-discriminatory manner. For the safety of survival and education of daughters, the campaign of government 'Beti Bachao Beti Pado' must be properly implemented in rural areas of the district. Government must establish more schools especially the Secondary and higher secondary schools in the district in rural areas to encourage the children especially the girls to enrol in schools. More awareness campaign must be undertaken in rural areas for raising the consciousness of people regarding equity in educational process and the resultant outcomes.

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