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Households discrimination in school enrolment in Pakistan: Does gender matter?

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ABSTRACT

This study uses Pakistan Social and Living Measurement Survey 2016 to study gender discrimination in school enrollment across the four provinces of Pakistan using bi-variate analysis. Results show that there is highly significant difference between male and female education in rural areas (x^2=4940.50 and p<0.05). Analysis indicate that gender disparity in enrollment is significantly higher in low income households (x^2=115.468 and P<0.05). The study also showed that as compared to male, fewer female are enrolled in both public and private sectors. Hence, socio-economic factors play important role in making decision about children enrollment in different types of school. The study recommends that government to take appropriate steps to reduce gender discrimination in school enrollment by offering subsidy on female education in the country.

Keywords
Gender discrimination; Enrolment; Socio-Economic Factors; Enrolment; Gender
JEL Classification
J10; J18; J19

1. Introduction

Knowledge, skills and improvements in personality, attitudes, talents and behaviours are the outcome of education. Education is considered as a critical factor while evaluating a society's development (UNDP, 1990). In today's modern era, human capital is considered the best national resource for a country. On one hand, educated people can access better opportunities for livelihoods while at the same time their creative work can benefit the entire nation (Tripathi et al., 2014). Education is one of the basic and essential rights of a person and its access should not be discriminated on gender, race, language or religion. The right to educate is common in all the religions and cultures. Unfortunately, in South Asia, access to education is discriminated based on gender, financial status, marital

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status and other socio-economic factors and Pakistan is no exception (Faizi & Butt, 2017). Such discrimination negatively affects the development process of a country.

Genders shall not be discriminated in the provision of opportunities to get their real potential unleashed. Many other studies have also highlighted the significance of male and female education in economic development of a country (Afzal et al., 2013). All these research studies emphasized and documented the significance of education without any disparity based on gender, region or nation for socio-economic growth and development that remains slow in Asia. As compared to other countries, literacy rate is not only very low but highly unequal among males and females in Pakistan. According to economic survey of Pakistan, literacy rate has declined from 60 percent to 58 percent with literacy rate of 70 percent in males and 48 percent in females. Pakistan has been ranked the second worst country in the world for gender inequality. According, to the World Economic Forum (WEF), Pakistan ranks 143 out of 144 countries in the gender inequality index, way behind Bangladesh and India which rank 72nd and 87th respectively in 2016. This gape is the focus of this study in the case of education.

Irfan (2016) states that in Pakistan sisters as compared to their brothers are less likely to attend primary education. In some cases, where children are sent to school, it is commonly seen that parents decide to invest in their sons' education rather than their daughters. This may reflect the fact that upon marriage, daughters may no longer contribute to family income and are therefore not seen as worth investing. Consequently, girls' otherwise intelligent and capable are deprived of education. This also limits their role in the development of the society.

Studies that have investigated gender discrimination in education also indicated that such discrimination limits countries' potential to develop and prosper. Several factors could affect households' discrimination of gender in school enrolment. These factors may include education level of the household head, poverty status of household, age, gender of household head and a host of other factors. These factors enhance our understanding of the links between a social phenomenon and gender description in school enrolment. This study is an attempt to analyse the socio-economic factors that lead to the gender gap in the enrolment. Moreover, objective of this study is to know about the status of children distribution as per their socio-economic status and to highlight the factors that lead to gender gap in school enrolment across the provinces of Pakistan. The findings of the study might be helpful for parents, researchers, policy makers and the government. Results can be used in the development of policies for reducing gender discrimination in school enrolment among school going children. The findings of the study are also helpful for recognizing the worth and contribution of female education for economic development of the country.

2. Literature review

Zarar et al. (2017) examined the causes and effects of gender discrimination against women in Quetta by using primary data. The study concluded that literacy is directly linked with the willingness of the parents/guardians towards education attainment. The study further stated that majority of the girls do not give any monetary incentives as they get married in the early age while boys are required to have more education as compared to girls and the reason is the earnings. The study also highlighted certain other religious factors which hinder female education in the society. Another study conducted by Luqman et al. (2017) analysed the factors contributing to gender disparity in education in rural areas of the Punjab province in Pakistan. The main data were collected from three hundred household heads and from their spouses through specific individual interviews to find the actual difference in view of the male and female respondents. The collected data was analysed using SPSS and applied t-test method to find out the difference in responses of male and female participants. In order to determine the difference in intensity of factors in three districts, F-test was applied. The analysed results confirmed that there is highly significant difference between age of male family heads and their spouses (wives) (χ=50.121 and P <0.05). Cross tabulation suggested that educational status of wives was low as compared to their husbands. Analyses showed that a few socio-economic factors are the existing gender discrepancy with reference to education in the study areas. The researcher determined low income, high educational expenditures, low educational level of parents (especially the mother), and security concerns of parents regarding sexual harassment as the major factors impeding female education. The study recommended that the Government at the national level should take serious steps to creating conducive environment to increase female enrolment rate in rural localities. Another study held in Punjab province by Afzal et al. (2013) analysed the gender disparity in schools. They showed that parents differently treat male and female education. This disparity is high in rural as compared to urban areas. Shayan (2015) also studied disparity in females and males education access. He showed that women participation in education is less than men and it further decreases in the higher education. The fear of terrorist attack and kidnaping by Taliban has also reduced women participation in certain areas. Moreover, the study identified that the most basic problem of women is the very paternal structure of the society and discrimination originate from extreme religious beliefs and traditions.

Shaukat et al. (2014) analyse the discrimination practices in the higher institutions of Pakistan focusing on the variables such as Decision making, professional development, utilization of resources, academic affairs and job satisfaction. The study used the T-Test and ANOVA test for analysing the data. The study concluded that gender differences is only in decision making and academic affair and less discrimination is observed in higher

positions than in lower positions. Qureshi (2012) examined the gender differences in school enrolment and return to education in Pakistan by using primary data. The study suggested that there is under investment in female education and return to education's are much higher for female than male. It is found that private rate of return to time spent in school is higher than labour market for a female but return that goes to parents are lower for female than sons because parents are dependent on son at old age support. The study also concluded that mother roles are more significant and more impassive than father in term of magnitude of all level of female education. Khan et al. (2013) states that female feel more secure after getting education and association between female education in urban areas is higher than rural areas while White et al. (2016) believes in supportive attitude of parents can help in female education. Other studies such as Mian et al. (2016), Ara and Malik (2012), Cooray and Potrafke (2010) and Chaudhry and Rahman (2009) investigated the impact of gender inequality in education and reached to conclusion the gender discrimination affects the education attainment. The next section discusses the data and analytical tool used in the analysis.

3. Research methods

The principal objective of the study is to investigate gender discrimination in school enrolment in Pakistan. The study used PSLM data for the year 2016. Frequencies and cross tabulation are used to analyze the data. This report contains the data collected from 24,238 household based on 1605 urban & rural Primary sampling units (PSUs). The period of field enumeration of HIES as part of HIICS 2015-16 was from September 2015 to June 2016. The variables used in the analysis are Gender, Age, Income of the household, institution and region. Table 1 presents the variables and their definitions.

Table 1: Definition of the variables used in the analysis

Variable	Definition
Gender	Male/female
Age	Age of the respondent in years
Income of household	Annual income of households in rupees
Institution	Public, private and others (deeni madras etc.)
Region	Urban and Rural

The study mainly uses cross-tabulations and Chi-square for analysis of the data. It helps to establish association between dependent variable, gender discrimination and the independent variables Chi square test is also used to test the hypotheses.

$$X^2 = \sum_{i=1}^{j}\sum_{i=1}^{k}(0ij - eij)^2 \,/\, eij \qquad (1)$$

where, X^2 represents Chi-square for two categorical variables, $0ij$ represents the observed frequencies in the cross-classified category at *i*th row and *j*th Column. And eij

represent the expected frequency for the same category, assuming no association between variables under investigation. The resulting frequency is distributed as chi-square with relevant degree of freedom. The degree of freedom is calculated as df = (*r*-1) (*c*-1) where df is equal to degree of freedom, *r* represents the number of rows and *c* represents number of columns.

4. Results and discussion

Several steps were taken to select the right observations before analyzing the data. First, households with school going children were selected in Pakistan Social and Living Measurement (PSLM) survey. Second, households with both male and female school children were selected. Third, individual child's profile was obtained from the PSLM data. Fourth and finally, household characteristics were placed against each selected school going child in the database. This gets us to 56,218 out of 157,775 observations. Cross-tabulations were generated against different socio-economic characteristics of the households to understand the phenomenon of household gender discrimination in school enrolment. Table 2 shows the number of schools going children according to their age. About 35.6 percent of the children are in the age bracket of more than five and less than 18 years. The rest do not fall in this category. The importance of school education could not be more over emphasized as it forms the base of the pyramid of education. Primary education also makes the basis of any human capital development and hence it is very important for the economic growth of a country from the perspective of new growth theory. Glewwe and Jacoby, (1995) highlight the importance of age of a child for starting a school. It is natural that if a child starts education at a lower age then he/she also completes it quickly, which increases returns to schooling as he/she can work for more years. Typically, school enrolment can be increased by increasing the number of institutions as well as increasing the proportion of GDP spent on education. Poverty, income of households, education level of parents, family size is some of the other factors that affect enrolment at school level. The difference between school going and those who do not attend schools is statistically significant.

Table 2: Distribution of respondent according to school age

Ages	Frequency	Percent	Valid Percent	Cumulative Percent
Not school age	101557	64.4 %	64.4 %	64.4 %
School age>=5 and <=18	56218	35.6 %	35.6 %	100.0 %
Total	157775	100.0	100.0	100.0 %

Source: own estimation using HIES 2015-16 data.

Next it is important to understand that proportion of children attending schools in rural and urban areas. Less than fifty percent (48 percent) of the children attend schools in rural areas while the 71.6 percent attend in urban areas (Table 3). One way of increasing enrolment in schools could be by increasing the numbers of schools and government

spending. It could also decrease the imbalance of school prevalence in urban and rural areas. The access to higher education for female gets even worse due to many socio-economic factors including early marriages, social pressure and financial constraints are the major restraints as reported by different research studies in different regions/provinces of Pakistan (Khan et al., 2013).

Table 3: Distribution of respondents ever attended any educational institution

Province	Yes		No		All
	Rural	Urban	Rural	Urban	
KP	6981	15475	7250	8240	37946
	12.80 %	15.00 %	13.30 %	8.00 %	24.10 %
Punjab	11721	33900	8569	8866	63056
	21.40 %	32.90 %	15.70 %	8.60 %	40.00 %
Sindh	5769	16571	9207	6256	37803
	10.50 %	16.10 %	16.80 %	16.80 %	24.00 %
Baluchistan	1762	7820	3428	5960	18970
	3.20 %	7.60 %	6.30 %	5.80 %	12.00 %
Overall	26233	73766	28454	29322	157775
	48.00 %	71.60 %	52.00 %	28.40 %	100.00 %
	Chi square=4940.50		p<0.05		

Source: own estimation using HIES 2015-16 data.

Next it is important to understand that how much gap exist between male and female according to institution. Table 4 shows that 6278 (30.1) male while 5200 (24.9%) female are studying in public sector schools. In case of private sector, 6502 (21.6%) male while 3635(17.4%) female are studying in these institutions. The others institution like *deeni madras* etc. accommodate 663 (3.2%) male and 601(2.9%) female. These results also show that enrolment in institution is statistically significantly affected by gender. In the private institutions, male account for 55.3 of the enrolments while female contributes 44.7. Hence, households prefer male to be educated in private schools.

Table 4: Distribution of respondents according their institution

Gender	**Institutions**			**Totals**
	Public	Private	Others	
Male	6278	4502	663	11443
	30.1 %	21.6 %	3.2 %	54.8 %
Female	5200	3635	601	9436
	24.9 %	17.4 %	2.9 %	45.2 %
All	11478	8137	1264	20879
	55.0 %	39.0 %	6.1 %	100.0 %
Chi square = 3.776		P>0.0		

Table 5 shows the distribution of educational institution according to income groups. The lowest income group was of the household with annual income of less than Rs. 50000 and the highest group was with earnings of more than Rs.500000 per year. Afzal et al. (2013) showed that income is an important determinant of education between male and female. Income not only determines the disparity between male and female education. The table shows that the number of households opting for private institutions as income level

increases and this relationship is statistically significant. Table 4.5 shows that for households of income of less than Rs. 50,000 per year, households with male and female tend to send their children to public institutions while a large proportion of households with male only send their children to private institutions. As income increases this phenomenon becomes more noticeable.

Table 5: Distribution of respondent according to their income

		Institutions			Total
		Public	Private	Others	
less than 50000	Count	1792	1690	201	3683
	% of Total	3.9 %	3.7 %	0.4 %	8.0 %
50001-150000	Count	2978	847	324	4149
	% of Total	6.5 %	1.8 %	0.7 %	9.0 %
150001-300000	Count	9259	4997	1018	15274
	% of Total	20.1 %	10.9 %	2.2 %	33.2 %
300001-500000	Count	5925	5092	636	11653
	% of Total	12.9 %	11.1 %	1.4 %	25.3 %
above 500000	Count	4217	6482	517	11216
	% of Total	9.2 %	14.1 %	1.1 %	24.4 %
Total	Count	24171	19108	2696	45975
	% of Total	52.6 %	41.6 %	5.9 %	100.0 %

5. Conclusion

The study concludes that a highly significant age difference exists between male and female education in rural areas. Similar trend is found in educational enrolment of male and female. Educational enrolment of female is low as compared to male children. Analysis showed that several socio-economic factors are responsible for existing gender disparity with reference to education. Gender disparity is found to be the maximum for lowest income group. It is high in Baluchistan, followed by KP, Sindh and Punjab. The findings suggest that the root cause of the gender discrimination are the socio-economic factors that directly as well as indirectly affect the education attainment. As Pakistan is a developing country and majority of the population live in rural areas living standards of the population is not up to the mark. Income plays a great role in the attainment of education and other facilities. Furthermore, gender discrimination specifically with women can be reduced by giving more opportunities them in the shape of women quotas and subsidized which will eventually lead to the reduction in gender gap enrolment. Awareness campaigns about the importance of women education in the society, increasing the educational funds, and scholarships, could be other steps to enhance female enrolment and improve the facilities and infrastructure of the institutions.

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