

Gender Disparity in Pakistan: A Case of Middle and Secondary Education in Punjab

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Using primary data from MICS 2007-08, this paper assesses the gender disparity at middle and high school levels in Punjab province Pakistan. Various special measures have been implemented to alleviate gender disparity in social and cultural contexts. Gender equality in education and empowerment of women was the goal that was set as Millennium Development goal. However, the gap due to differential treatment of parents with boys and girls under normal routine and social aspiration reflected the preference for males over females, specifically in rural areas. In urban areas, the importance of education proved dominating factor for eliminating distinction between male and female enrolment. The considered characteristics proved causes of gender disparity at rural level and the disparity level is so strong in rural areas that it vanishes as the effect of obligation of parents for female education in urban areas and on overall basis and thus, there existed gender disparity in Punjab province of Pakistan.

Keywords: *gender disparity, school education, MICS*

JEL Classification: J16, A21

Introduction

Education empowers the human through knowledge, skill, training, competencies and polishes her/his personality, attitudes, abilities and behaviours. It also creates awareness, tolerance, self-esteem and confidence in people for their rights. In Pakistan, education is classified as: school, college and university levels. School level education is sub-classified as: primary (grades one through five), middle (grades six through eight) and high school level (grades nine and ten). The present study has been confined to assess gender disparity at middle and high school levels in the Punjab province of Pakistan. Government of Pakistan spent 1.4 percent of its GNP on education in 1980-81 and since 1980-81 its allocation on education has been mildly increasing and became 2.1 percent of GNP in 2008-09. However, with the formulation of the new 'National Education Policy, 2009' the allocation for Pakistan education sector aims to be enhanced to 7 percent of GDP. The literacy rate in Pakistan has increased from 26.2 percent in 1980-81 to 57.4 percent (69.3 percent for males and 44.7 percent for

females) in 2008-09 (Pakistan Economic Survey 1995-96; 2009-10). The government of Pakistan has planned to raise the literacy rate to 85 percent by 2015. Education for all (EFA) has been experiencing with a principal goal of eliminating gender disparity in developing countries. The same is being implemented for reduction of gender disparity in Pakistan as well.

Gender disparity, in general, refers to the gap indicated by differential preferences between males and females in any field of life. In the context of education, gender disparity refers to the gap between enrolment of male and female students in educational institutions. In this paper, the gender disparity is being investigated for the Punjab province of Pakistan at middle and high school levels of education.

It is generally accepted that in this electronic media age, awareness and introduction of policy measures favouring female children education and career opportunities ensure female security, a better

way of life and more career choices. Consequently, Millennium Development Goal (MDG3) for gender equality and the empowerment of women is the goal that was set with earliest date for its achievement. The target associated with MDG3 was to end the gender inequality in primary and secondary levels of education (Unterhalter, 2006).

Despite adoption of all the policy measures and program initiatives, gender gap even at primary level was estimated to the extent of 11.13 percent in Pakistan (Balauch and Shahid, 2009). Moreover, one primary school has been established at every possible location in rural areas but beyond that stage establishment of middle or high schools facilities have remained lacking, especially, in rural areas. Thus the gender disparity might be more at middle and high school levels. However, middle and high schools were not established even at union council level in some rural areas of Punjab.

The situation improves significantly for higher education, where in some subject areas the index is in favour of females (National Education Policy, 2009). The relative disadvantage of the rural areas compared to urban ones becomes evident from the secondary and above levels of education. The disadvantage at the secondary level is rather larger (48 percent urban versus 22 percent rural). The gap between the two areas has widened from 20 percentage points in 2001-02 to 26 percentage points in 2005-06.

Despite focusing on education in general and gender disparity in particular, the country has not recorded any progressive step towards this aspect. Considering all this, the study has been organized to assess the steps taken by the public sector to have gender equality at middle and high school levels and their reflected impact on the objectives relating to MDG3.

Generally, the practice of co-education has been confined to primary level, whereas, the primary school has been established in every village in the Punjab. However, middle and high schools were not established even at union council level. Consequently, there is every possibility of widening the gender disparity in rural areas at middle and high school levels. That is why this study is focussed on

the following principal objectives.

- a. To assess gender disparity at middle and high school levels under the prevalent environment in the Punjab Province of Pakistan.
- b. To suggest possible policy measures to minimize gender inequality at middle and high school levels in Punjab.

II. Review of Literature

Considering the significance of education, every successive government has given some priority to education. Every regime has adopted relevant measures to improve the educational opportunities for its people. Every nation whether more or less developed, is concerned about further development of her education sector. Various studies have been conducted on various aspects of education, but aspect of gender disparity remained mostly unattended, especially in Muslim countries due to certain religious, societal and conceptual aspirations. However, the main studies available on this issue have been reviewed here.

Johnson (1993) argues that studies of growing socioeconomic stratification in Papua New Guinea have ignored or dismissed gender as a source of inequality. The article focuses on educational opportunity as the key to wealth and political power and shows that the rural women are the educationally disadvantaged group in Papua New Guinea. Those individuals who belong to both rural and female categories are the most educationally disadvantaged and the least likely to enjoy the pre-requisite of political office or high income.

Alderman and King (1998) are of the view that the gender gap in schooling is puzzling given that the expected returns to an individual for increased schooling do not differ by gender. The authors explore possible explanations for the disparity using a model of parental investment in children. This paper reviews available evidence and indicates interventions that governments can make to reduce the gender gap in education. It indicates that the disparities in investment could come through differences in returns realized by parents. The paper also points out that it is difficult to distinguish empirically these different explanations. The paper

reviews available evidence and indicates interventions that governments can make to reduce the gender gap in education.

Rena (2005) points out that gender disparity in education raises many questions for governments and civil societies. There are many factors that contribute to the gender gap in education. Using data from Eritrea, the author finds that gender disparities persist in the enrolment rates between boys and girls at all levels. The author also identifies and analyzes various factors that cause gender inequality in education. Furthermore, the author also indicates some policy implications to solve the related problems in the country.

By using internationally comparable household data sets, Filmer (2005) examines how gender and wealth interact to generate within-country inequalities in educational enrollment and attainment. The author highlights that the females are at a great educational disadvantage in particular regions of South Asia and North, Western, and Central Africa. On one side the study finds large gender gaps in a subset of countries, and on other side the study finds large wealth gaps in almost all of the countries being studied. Wealth gaps found larger than corresponding gender gaps. The paper also finds that in particular countries where there is a large female disadvantage in enrollment; wealth interacts with gender to exacerbate the gap in educational outcomes. The paper fails to shed light on important aspects of education inequalities. This study suggests more focus on the poorest girls to reduce gender disparity in education. Policy interventions that raise the economic well being of the poor households to enroll girls could potentially have beneficial impacts.

Rahji (2005) examines school enrolment and gender gap of rural household's children at primary level. A multistage sampling technique was used in data collection. Probit model was employed for data analysis. Evidence was found in favour of enrolment of more boys than girls. Father's education proved to be a significant variable for boys but not for girls, whereas mother's education proved not to be a significant variable for both genders. The author estimated a gender gap of 12.56 percent in favour of boys. There is thus preference for boys over girls in the demand for schooling. Based on the findings of

this study, incentives for the enrolment of more girls were recommended. These include: differential fees, free tuition, and increased public subsidies for female education

Pandy (2006) is of the view that education is the most important instrument for human resource development. Education of girls, therefore, occupies top priority amongst various measures taken to improve the status of girl child. The government has resolved to make free and compulsory elementary education a fundamental right and to enforce it through suitable statutory measures. Universalisation of Elementary Education (UEE) has been accepted as a national goal since 1950. To achieve the goal, concerted efforts have been made and as a result, the elementary education system in India has become one of the largest in the World. The primary education enrolment rates of girls have a positive impact on economic well-being of women, their families and society in the long run. Since the mother carries the burden of looking after the health of her child, how well she does this task depends on the knowledge and confidence that she gains from education.

Subranhmanin (2006) recommends that implementation of gender equality policy needs to move beyond targeting women and girls to thinking systematically about the linkages between different sub-sectors of education and developing measures of progress that move beyond quantitative outcomes captured at different points. Measures to improve the functioning of gender mainstreaming units are important. There is a huge task ahead in terms of making gender awareness a feature across system. However, providing these units with adequate resources as well as important roles in oversight of policies and implementation measures is critical. Three levels that Gender Equality Measures (GEM) suggests are important to emphasize: awareness, communication and incentives. However, underlying all of this is the need to locate "mainstreaming" within the wider sphere of work and influence that goes under the rubric of governance reforms. Gender mainstreaming will continue to be seen as an add-on, not a fundamental part of system change.

Chauhdary and Rehman (2009) investigate the impact of gender inequality in education on rural poverty in Pakistan using Logit Regression analysis

on primary data. The paper concludes that gender inequality in education has adverse impact on rural poverty. The empirical findings suggest that female-male ratio of earners and education of household head cause decrease in rural poverty. The results indicate that household size and female-male ratio of household members have strong association with the incidence of poverty. The inverse relation between variables of gender inequality in education and rural poverty suggests that education provides more employment opportunities and reduces poverty in developing countries like Pakistan.

Aslam (2008) investigates whether the intra-household allocation of educational expenditure in Pakistan favours males over females by using individual level data from Pakistan Integrated Household Survey 2001-2002. The paper posits two potential channels of gender bias i.e., bias in the decision whether to enrol daughters and sons in schools, and bias in the decision of education expenditure conditional on enrolling both daughters and sons in schools. At Middle and Secondary school level, the study finds enough evidence of significant pro-male biases in both the enrolment decision as well as the decision of how much to spend conditional on enrolment. The gender disparities were found more strongly apparent in Balochistan, NWFP and FATA, and in rural areas of Punjab.

Baluch and Shahid (2008) state that though the furnished quality of the enrolled students leads towards the positive example of success of not only in education but also in practical life of the ensuing generation, yet to alleviate gender disparity in social and cultural context, special measures are needed for the success and improvement of females overall in the country to participate in share contributed by experience of development. Millennium Development Goal for gender inequality and empowerment of women was the goal that was set with the earliest date for achievement. Despite the adaptation of several policy measures and program initiatives; gender gap at primary school level was estimated to the extent to 11.13 percent. The gap due to the treatment of parent with the boys and girls under normal routine and societal aspirations was estimated at 10.96 percent or 98.4 percent of the estimated gap. This situation leads towards the

dimension that boys are preferable group in Pakistan. Since the disparity was due to preferences to males over females at school level, underlying reasons might be cultured, societal, and traditional expectations i.e. linked future of females with expected husband's households after marriage, and all obligations of parents for males, considering them heir of all types of properties.

So for the focus of the discussion has remained in assessing the gender disparity generally at primary level in most of the countries. However, it was found that level of gender disparity has been mostly in health and education sectors, especially in countries with Muslim conceptual aspirations. The empirical results of most of the studies cited above suggest that males are given preference over females in all the countries of the Muslim world in education even at school level. Consequently, incentives for the enrolment of more females are recommended to reduce gender disparity in these studies.

III. Data Sources, Sampling Procedure and Methodology

Data Sources

The primary data collected by the Bureau of Statistics (BOS) Punjab for the study "Multiple Indicator Cluster Survey (MICS) 2007-08" have been used for the study on hand.

Sampling Procedure

As the data collected by the BOS was used to get the statistical results of this study, the sampling procedure used by BOS is being presented and discussed briefly below.

Stratification

There are eight large cities in the Punjab Province. These include Lahore, Faisalabad, Rawalpindi, Gujranwala, Multan, Sargodha, Sialkot and Bahawalpur. All the major cities were further subdivided into "Towns" except Sargodha, Sialkot and Bahawalpur. Each one of these "Towns" constitutes a separate stratum which has been further sub-stratified according to the socioeconomic status of each one of the Enumeration Blocks (EBs) within each "Town".

Each district in the urban areas constitutes an

independent stratum. These strata were further subdivided into their respective tehsils for sample selection and estimation purposes. The smallest domain of estimation is, thus, the tehsils. For the **rural domain**, each administrative district has been treated as an independent and explicit stratum. The sample selection was conducted separately within each rural part of the corresponding tehsils.

Sample Design

The sample was selected at two stages. In the urban areas, the first-stage selection unit is the Enumeration Block. In the rural areas, the first-stage selection is village. From each first-stage sample unit, a sample of households has been selected: 16 in the rural areas and 12 in the urban areas. The first-stage units are selected with probability proportional to size. The second-stage units are selected with equal probability. This gives a sample that is more or less self-weighting within each selected stratum. However, the self-weighting characteristic of the sample is lost after the field work due to adjustments such as non-response, changes in the occupancy status of the households, refusals, etc.

Details regarding estimated sample size at division level by accumulating the sample size determined at tehsil level have been presented in Table 1 below. Thus, in all, there was 6368 sample enumeration blocks and from them 58.3 percent, 28.0 percent and 13.7 percent are, respectively, in rural areas, other urban areas and major cities. Consequently, the sample of 91280 households (34.9 percent from urban areas and 65.1 percent from rural areas) of the Punjab Province was selected.

METHODOLOGY

The principal objective of the study is to measure the gender disparity at Middle and High school levels. The gender disparity has been measured under cross tabulation and applying Net Enrolment Index (NEI). It is measured by applying simple analysis to gender disaggregated NE at Middle and High school levels. Though, the data was not collected specifically for the study, the analysis is confined and linked with dependency of available data and specific variables for analysis purpose.

Net Enrolment Index in period t (NEI_t) is calculated as:

$$NEI_t = \frac{PNE_{ft}}{PNE_{mt}}$$

Where

PNE_{ft} = Proportion of females student net enrolment in period t .

PNE_{mt} = Proportion of males student net enrolment in period t .

Net Enrolment (NE) at Middle and High school levels

NE only takes into account the students of official age group to be enrolled at the concerned level of education. It is relatively better indicator in order to assess the inclination of parents towards education. NE is the percentage of enrolled students of official age group 10 to 13 years for Middle school level and 14 to 16 years for High school level at a particular level of education with respect to the population of the same age group. The formula for calculating NE is as under:

$$NE_t = \frac{EP_t}{TP_t}$$

Where:

NE_t = NE at Middle and High school levels of education in year t , respectively.

EP_t = Enrolled students of age group 10 to 13 and 14 to 16 years at Middle and High school levels of education in year t , respectively.

TP_t = Total population of age group 10 to 13 and 14 to 16 years in year t , respectively.

Gender Disparity in NE by Dependency Ratio

Gender disparity in NE is also measured by dependency ratio at Middle and High school levels. Dependency ratio is the ratio of non-working age population to the working age population. Since countries use different definitions of working age population, UN definition of working age, which is 15 to 64 years, has been adopted in this paper. The formula applied to estimate dependency ratio is as under:

$$\text{Dependency Ratio} = \frac{\text{Population under the age of 15 years and over the age of 64 years}}{\text{Population ranging between the ages of 15 to 64 years}}$$

Table 1: Division wise sample enumeration blocks from rural and urban areas of Punjab

Division	Major City	Clusters			Households		
		Other Urban	Rural	Total	Urban	Rural	Total
Bahawalpur	29	215	528	772	2928	8448	11376
D. G. Khan	0	199	435	634	2388	6960	9348
Faisalabad	153	191	429	773	4128	6864	10992
Gujranwala	119	270	462	851	4668	7392	12060
Lahore	270	237	506	1013	6084	8096	14180
Multan	138	236	567	941	4488	9072	13560
Rawalpindi	136	284	473	893	5040	7568	12608
Sargodha	27	148	316	491	2100	5056	7156
Punjab	872	1780	3716	6368	31824	59456	91280

IV. Statistical Analysis and Interpretation of the Results

Gender Disparity applying NE at Middle and High school levels

The data presented in Table 2 reveals that at *Middle school level* the NE for both sexes and urban- rural combined was 27.7 percent of respective age children. Such enrolment in urban sampled areas was 34.8 percent and in rural sampled areas was 23.4 percent. The data in Table 2 also reflect gender disparity at overall level (aggregated level) with an NEI of 0.86 as well as in rural areas with an NEI of 0.72. However, in urban areas the proportion of enrolled students is slightly higher in case of female students with NEI of 1.05 favouring females and in rural areas the adverse situation is observed with more proportion of male enrolled

students. In rural areas, the proportion of NE of male and female students was 58 percent and 42 percent, respectively indicating gender disparity at this class level of education.

At *High school level of education*, NE was 26.4 percent for male-female and rural-urban combined students. Whereas, NE for male-female combined students was 33.5 percent in urban areas and 21.6 percent in rural areas. However, the estimated gender disparity was higher in rural areas relative to that in urban areas and this exhausted the effect of equalization in enrolment by sex. Consequently, gender disparity on overall basis, i.e., male-female and rural-urban combined was found as the NEI score was found less than one i.e., 0.87 at High school level of education.

Table 2: NE pattern in Middle and High school levels of education by gender and location of residence (in percentage)

Item	Middle School				High School			
	Total	Male	Female	NEI*	Total	Male	Female	NEI*
Total	27.7	53.7	46.3	0.86	26.4	53.6	46.4	0.87
Urban	34.8	48.9	51.1	1.05	33.5	48.5	51.5	1.06
Rural	23.4	58.0	42.0	0.72	21.6	58.7	41.3	0.70

*NEI=Net Enrolment Index

In urban areas, the proportion of female enrolled students at *High school level of education* was 51.5 percent and that of male students was 48.5 percent. In rural areas, the proportion of female enrolled students was 48.3 percent as compared to 58.7 percent that of male enrolled students. Gender disparity was obvious in rural areas at this level of education as NEI score was estimated 0.70. This situation could be attributed to non existence of educational institutions of the concerned stage of education, especially, in rural areas of Punjab. In certain area, there exists educational institution but household's low income level, religious and other social aspirations and non-availability of safe conveyance facility restricts the female to go to schools and thus hinders in the way of attaining and raising enrolment in Punjab. Moreover, in urban areas, the involvement of private sector in education has created this facility without distinction of the inhabitants, while, availability of transport facilities has exhausted the gender discriminating gap in this area.

Gender Disparity in NE by Income Group

Income serves an effective tool in determining enrolment pattern at Middle and High school levels of education, since the education expenditures start increasing in terms of tuition and other charges at school or out of house premises at this age of children. The households were distributed in five groups with respect to income earned. The lowest group was of the household with income earning up to Rs. 15,000 per month and the highest group was with earning Rs. 24,000 & above per month. The data on NE by income group are presented in Table 3 below.

Table 3 reveals gender disparity in NE by income group at both Middle and High school levels of education. The results given in Table 3 reveal that, the gender disparity is found to be the maximum for lowest income group at both levels of education.

Table 3: Gender disparity in NE by income group at Middle and High school levels (in percentage)

Income Group (Rs./month)	Total (No.)	Middle School			High School			
		Male	Female	NEI**	Total (No.)	Male	Female	NEI**
Upto 15,000	9488 (71.2)*	54.3	45.7	0.84	5998 (65.9)*	54.3	45.7	0.84
15,000 < 18,000	778 (5.8)	51.9	48.1	0.93	602 (6.6)	50.5	49.5	0.98
18,000 < 21,000	753 (5.7)	54.2	45.8	0.85	572 (6.3)	52.1	47.9	0.92
21,000 < 24,000	344 (2.6)	50.3	49.7	0.99	277 (3.0)	50.2	49.8	0.99
24,000 and above	1964 (14.7)	51.8	48.2	0.93	1652 (18.2)	53.2	46.8	0.88
Overall	13327 (27.7)	53.7	46.3	0.86	9101 (26.4)	53.6	46.4	0.87

*Figures in parentheses indicate enrolment percentage

**NEI=Net Enrolment Index

Gender Disparity in NE by Dependency Ratio

Table 4 presents gender disparity in NE by dependency ratio at Middle and High school levels of education (in percentage).

The dependency ratio is expected to be an important determinant of enrolment ratio for Middle and High school levels of education. The dependency ratio was confined from the lowest level of up to 0.5 to the highest level of 2.00 and above. The dependency ratio proved effective factor with respect to enrolment pattern. The results

given in Table 4 reveal that the NE decreases as dependency ratio increases, It was proved ineffective factor with respect to enrolment pattern, since it remained fluctuating among considered dependency ratio groups in case of Middle and High school levels of education. However, on overall basis it was 27.7 percent in Middle classes and 26.4 percent in High classes. Nevertheless, in both the cases the gender disparity was observed in all the dependency ratios for Middle and High school levels with estimated NEI score of 0.86 and 0.87, respectively.

Table 4: Gender disparity in NE by dependency ratio at Middle and High school levels (in percentage)

Depen-dency Ratio	Total (No.)	Middle School			Matric School			
		Male	Female	NEI**	Total (No.)	Male	Female	NEI**
Up to 0.5	2570 (19.3)*	53.8	46.2	0.86	3618 (39.8)*	54.3	45.7	0.84
0.5 < 0.75	1687 (12.47)	55.2	44.8	0.81	1405 (15.4)	55.1	44.9	0.82
0.75 < 1.00	2181 (16.3)	56.7	43.3	0.76	1482 (16.3)	54.9	45.1	0.82
1.00 < 2.00	4394 (33.0)	54.0	46.0	0.85	1920 (21.1)	51.2	48.8	0.95
2.00 and above	2492 (18.7)	49.4	50.6	1.03	675 (7.4)	49.8	50.2	1.01
Overall	13324 (27.7)	53.7	46.3	0.86	9100 (26.4)	53.6	46.4	0.87

*Figures in parentheses indicate enrolment percentage

**NEI=Net Enrolment Index

Gender Disparity in NE by Household Head’s Education

Since head of household is the person considered to have decision power with respect to all the matters faced by the household. By this it is assumed that education of the head of the household would have bearings with respect to education of his children at least. It was found from the results in Table 5 that an increase in education of head of household resulted decrease in disparity in both the considered levels of education *i.e.*, Middle and High school levels. However, this assumption obviously proved correct in urban areas for measuring gender

disparity in case of Middle level of education. Actually in urban areas the societal aspirations bore no weight and the group of illiterate head of households even was equal in enrolment pattern *at Middle level* with estimated NEI score of 1.05 in Table 2. In overall urban areas, the NEI was 1.05, while in rural areas, inverse situation was observed with NEI score of less than one (0.72) reflecting gender disparity. Consequently, it could be concluded that awareness regarding importance of education proved dominating factors in urban areas eliminating distinction between males and females enrolment at Middle and High school levels of education.

Table 5: Gender disparity in NE at Middle and High school levels by household head’s education (in percentage)

Education	Total (No.)	Middle School			High School			
		Male	Female	NEI**	Male	Female	NEI**	
Illiterate	3884 (29.2)*	58.7	41.3	0.70	2274 (25.0)	58.4	41.6	0.71
Primary	1833 (13.8)	54.7	45.3	0.83	1155 (12.7)	53.1	46.9	0.88
Middle	1917 (14.4)	51.3	48.7	0.95	1276 (14.1)	52.4	47.6	0.91
Secondary	3373 (25.4)	50.9	49.1	0.97	2596 (28.6)	51.4	48.6	0.95
Higher	2294 (17.2)	50.6	49.4	0.98	1779 (19.6)	51.7	48.4	0.94
Overall	13301 (27.7)	53.7	46.3	0.86	9080 (26.4)	53.6	46.4	0.87

*Figures in parentheses indicate enrolment percentage

**NEI=Net Enrolment Index

Gender Disparity in NE by Household Head’s Profession

Gender disparity was assessed on the basis of NE by profession of head of households in Table 6. The professions were classified as Govt Employee, Private Employee, Self-employed, Employees working on daily wages and household involved in getting income by doing Agriculture activities and others remaining several earning activities.

The results presented in Table 6 reveal that

proportion of net enrolled students was the highest, *i.e.*, 20.6 percent and 21.6 percent for Middle and High school levels of education, respectively in case the household head was Government Employee. The next highest similar proportion was 20 percent and 20.7 percent for the self-employed households. Gender disparity was estimated in case of all the professions adopted by the heads of households. On NEI basis, there existed gender disparity on overall basis as it was estimated below one in all the professions. In urban areas, the situation was in favour of females with no estimated gender

disparity, since estimated NEI score was equal to or greater than one in all the professions adopted by household heads. In rural areas, gender disparity was obvious in all the professions with estimated NEI value of less than one. The too high level of gender

disparity at rural areas of Punjab eliminated the status of disparity in urban areas and the disparity was obvious on overall basis (male-female and rural-urban combined) with estimated NEI score of less than one in case of both levels of education.

Table 6: Gender disparity in NE at Middle and High school levels of education by household head's profession (in percentage)

Profession	Total (No.)	Middle School			High School			
		Male	Female	NEI**	Total (No.)	Male	Female	NEI**
Govt Employee	2747 (20.6)*	52.1	47.9	0.92	1970 (21.6)*	52.3	47.7	0.91
Private Employee	1652 (12.4)	52.8	47.2	0.90	1164 (12.8)	50.6	49.4	0.98
Self-Employed	2664 (20.0)	50.3	49.7	0.99	1883 (20.7)	50.2	49.8	0.99
Daily wages	2115 (15.9)	56.0	44.0	0.79	1128 (12.4)	53.4	46.6	0.87
Agriculture/ Livestock/ Fishery/ Poultry	2347 (17.6)	58.8	41.2	0.70	1649 (18.1)	62.2	37.8	0.61
Others	1802 (13.5)	52.7	47.3	0.90	1307 (14.4)	52.3	47.8	0.91
Overall	13327 (27.7)	53.7	46.3	0.86	9101 (26.4)	53.6	46.4	0.87

*Figures in parentheses indicate enrolment percentage

**NEI=Net Enrolment Index

V. Conclusion and Recommendations

Conclusion

Gender disparity in net enrolment has been measured by utilizing primary data collected by the Bureau of Statistics (BOS) Punjab for the study "Multiple Indicator Cluster Survey (MICS) 2007-08". Gender disparity in this paper has defined as the gap indicated by preferences of males over females in any field of life. Gender disparity was reflected on overall basis (rural-urban, and male-female combined) with an NEI score of 0.86 as well as in rural areas with an NEI value of 0.72. In urban areas, the proportion of female enrolled students was slightly higher with an NEI of 1.05 favouring females, and in rural areas the adverse situation was observed with a higher proportion of male enrolled students. The estimated gender disparity was higher in rural areas relative to that in urban areas and this exhausted the effect of equalization in enrolment by sex estimated in urban areas and consequently

gender disparity was observed on overall basis with an NEI of less than one i.e., 0.87. The gender differential favouring females in urban areas is found much lower than that of the gender differential favouring males in rural areas of Punjab.

Generally, gender disparity was reflected on overall basis for Middle and High school levels of education. Though, no gender disparity was found in urban areas yet it was concluded that awareness regarding importance of education proved dominating factors in urban areas causing no distinction between males and females enrolment at these levels of education. There existed no disparity in certain urban areas, which was mainly due to the public provision of relevant facilities at these levels of education. On the other hand, lacking of such facilities in rural areas causes gender disparity. On overall basis (overall means both rural-urban and male-female enrolments), the results reveal the

preferences of males over females, especially in rural areas. So the considered characteristics proved ineffective to exhaust the effect of cultural, societal and religious conception, especially for rural population. Generally, the disparity level is so strong in rural areas that it vanishes the effect of obligation of parents for female education at Middle and High school levels in urban areas and as a result there existed gender disparity on overall basis in Punjab.

Recommendations

On the basis of conclusions drawn above the gender disparity being the challenging problem primarily for rural areas, the following policy options are recommended for the betterment of the situations with exhausted disparity in this area.

Certain misconceptions affect the enrolment pattern favouring male over female students under inherited societal aspirations, cultural and traditional expectations linked with males. It is thus essential to initiate a campaign in rural areas to create awareness regarding significance of female education to pace with the latest traditions adopted by the modern society. This could be made possible by initiating the campaign through use of electronic/print media and appointing educated females to disseminate the newly established societal aspirations, highlighting social and economic benefits of education to the female community.

The significance of female education and its likely contribution to the overall development of the country must be the first and foremost focus of the awareness campaign specifically in rural and remote areas of Punjab. Here a notable point was that the Punjab government was already adopting necessary measures to enhance enrolment of females at all levels of school education by providing financial incentives to reduce gender disparity. So the similar measures need to be introduced and should be implemented affectively. Necessary supervision will prove effective tool in this regard.

Increase in number of schools for girls should be one of the significant policy options. Along with other incentives already implemented in rural areas the reduction in home to school distance may prove a pivotal step to reduce gender disparity at school level. Consequently, non-existence of the concerned educational institutions was the other principal factor

which adversely affects female enrolment in the rural areas. Keeping in view the social aspects and ignoring economic considerations, if it was impossible to establish female education institutions in every village, it is thus suggested that policy makers should keep in mind that already established institutions or new institutions should be provided at least one bus or mini bus for every females' school to commute female children.

A direction for policy is to introduce potential measures that reduce the cost of schooling at Middle and High levels for female, especially in rural areas of Punjab. Another direction for policy is to establish/supply more schools for girls with sufficient number of quality female teachers that could not only make the schools less threatening place for young female students, but also give more confidence to parents to send their girls to schools.

It is also important incentive to bring the rural female children to school that vocational classes at evening or at night need to be introduced after primary class in Middle or High schools and this initial training will prove an ornament for school education completing female children.

Last but not the least, a special suggestion is recommended for the policy makers to exhaust gender gap not only at Middle school level but also at High school level. There is also a dire need to introduce a policy that raises the income level as well as the education level of the head of household of the lowest income group. Gender gap in enrolment in Punjab can be redressed by giving direct public subsidies as gender differential was rectified in Bangladesh by 'Bangladesh Secondary School Scholarship Program'. To reduce gender disparity, direct public subsidies must be introduced and given to all enrolled girls, especially to enrolled girls of the rural areas of Punjab. This will not only be helpful in eradicating gender disparity in Punjab but in Pakistan also.

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