

## THE GENDER DISPARITY IN EDUCATION (A CASE STUDY OF REGIONAL PUNJAB)

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### ABSTRACT

This study examined Gender disparity in net primary school enrolment among the districts of Punjab (Pakistan). The secondary data of 34 districts of Punjab is used for this study. The study found that there exist wide disparities in primary school enrolment among the districts of Punjab. There is a high disparity in primary school enrolment in districts of lower Punjab as compared to the districts of upper and central Punjab. The disparity in net primary enrolment among the districts of Punjab have a negative relationship with number of schools, number of teachers, male adult literacy rate and female adult literacy rate and positive relationship with per capita income and poverty status.

**KEYWORDS:** Primary School, Education, Educational Disparity

### INTRODUCTION

Education is very important to enhance human capabilities and to achieve the desired objectives of socio-economic development. Education enables individuals to broaden their visions and opportunities and to have a voice in public decision making. At the macro level, education means human capital and sustainable economic development due to productive and skilled labour force. At the micro level, education is strongly correlated to higher income generating opportunities and a more informed and aware existence. In Pakistan, education has suffered from many issues including underinvestment, failure to implement five-year plans, and lack of purpose and policy direction. Since independence, Pakistan has increased the number of primary schools eighteen fold and multiplied enrolment sixteen times. But these gains have been defeated by rising population and lack of quality education [HDR (1998)].

Achieving economic growth is an important goal of any economy. However in recent years, it has been realized that economic growth is a necessary but not a sufficient condition for human development. Pakistan provides a good example of a country which has historically enjoyed a respectable GDP growth rate and yet failed to translate this positive development into satisfactory level of human development. Since its independence in 1947, Pakistan's development policies have focused primarily on realising high economic growth and only incidentally on the task of providing social necessities. Such a process has given rise to a structure of production and distribution which has been only indirectly responsive to social goals.

### WORLD LEVEL ORGANIZATIONS

#### Education for All (EFA)

The Education for All (EFA) movement, started more than a decade ago in 1990, accelerated the process of human resource development in many developing countries. The EFA refers to the global commitment to ensure that all children would complete Primary Education of good quality. A decade after, the Millennium Declaration resolved to ensure, by 2015, that all children would be able to complete a course of primary education.

At the World Conference on Education for All (Jomtien, Thailand 1990), 1500 participants comprising delegates from 155 governments, policy makers and specialists in education and health, social and economic development from around the World, met to discuss major aspects of EFA. The World Declaration on Education For All and the Framework for Action to meet Basic Learning Needs, adopted at Jomtien, foresaw the need for an end of decade assessment of progress as a basis for a comprehensive review of policies concerning basic education. A number of meetings, conferences and forums were held in 1990's to assess the achievement and revise the targets, goals and policies in EFA. A brief overview of these meetings/conferences is as follows:

### **Jomtien Conference 1990**

The Jomtien Conference clearly defined the basic learning needs of the child i.e. learning tools (such as literacy, oral expression, numeric, and problem solving) as well as basic learning contents (such as knowledge, skills, values and attitudes). The framework for action to meet basic learning needs identified six main areas of action:

- Expansion of early childhood care and development activities;
- Universal access to and completion of primary education;
- Improvement in learning achievements;
- Reduction of adult illiteracy;
- Expansion of basic education and skills training for youth and adults.

Goals and targets agreed upon in the Jomtien conference were:

- Universal access to and 80% completion of Primary education by the year 2000.
- Reduction of adult illiteracy rate to one half of its 1990 level by the year 2000, with sufficient emphasis on female literacy.
- Improvement in learning achievement so that an agreed percentage of an appropriate age cohort (e.g. 80 percent of 14 years-old) attains or surpasses a defined level of necessary learning achievements.
- Expansion early childhood care and developmental activities, including family and community interventions, especially for poor, disadvantaged and disabled children.

### **The World Education Forum in Dakar (2000)**

Ten years after Jomtien, delegates of several countries and funding agencies gathered in Dakar and reaffirmed their commitment in providing Education For All (EFA). The World Education Forum, convened by UNESCO, UNDP, and UNFPA brought together 1500 participants from 182 countries, as well as major funding agencies. It ended with the adoption of the Dakar Framework for Action, wherein ministers of education and other government representatives, heads of United Nation agencies, the donor community and representative of NGOs, indeed all participants, committed themselves to achieve the goals and targets in EFA by the year 2015.

## **Education for all and Human Development**

Pakistan, like other developing countries, responded positively to the declaration. Measures like the Education Sector Reforms (ESR) Action Plan for 2001-04 and National Plan of Action (NPA) for education, a long term framework (2001-15) indicate its commitment with EFA goals. However the facts contained in the recent Human Development Reports reveal an alarming situation regarding current human resource status in Pakistan. According to the Human Development Index (HDI) ranking, Pakistan is at the 142th place among 175 countries, lying in the Low Human Development class. According to Education Development Index (EDI) Pakistan rank number is 118 in the world.

## **Punjab Education Sector Reform Program (PESRP)**

The Punjab Education Sector Reform Program (PESRP), which started in 2003, has three strategic pillars: (1) public finance reforms to ensure increased public spending for education; (2) devolution of public sector management reform; and, (3) improvement in access, quality and governance of education.

At the time of its launching, the Punjab had been witnessed insignificant improvements in the education sector with net primary enrollments rates of only 45 percent. The education reforms focus on increasing enrolments and retention especially for girls and in improving sector governance and monitoring.

The program has been supported by three IDA development sector policy credits, with the third credit, PEDPC III, approved in June 2006. In a period of three years, enrollment increases have been registered for both boys and girls although at a higher rate for girls. Consequently Punjab is seeing a narrowing of the gender gap. Sector governance has improved through robust monitoring, independent validations, and improvements in financial management.

## **Disparity**

The word disparity refers to lack of equality or parity among different groups, regions, individuals (males and females), countries and etc, for some comparable conditions. Disparity is also defined as difference between two or more things.

## **Educational Disparity**

The disparity in education means that the difference in the educational achievements such as enrolment for different individuals (gender disparity), groups, regions etc.

## **Educational Disparities in Pakistan**

There are great disparities in access among the four provinces; plus there are high variations in rural urban education indicators. A large proportion of the literate population is concentrated in the national and provincial capitals. The areas with low literacy rate are also backward in terms of economic development (Husain and Qasim 2005). Punjab being the most populated provinces hosted the largest number of state schools, while Balochistan hosts the smallest number. However, the status of education across the provinces is not equal. Literacy rate is highest in Sindh at 56 percent and lowest in Balochistan at 37 percent. This inter-provincial difference is most pronounced in literacy rates among females: as opposed to a female literacy rate of 44 percent in Punjab, in Balochistan the rate is only 19 percent.

Further there is great variation in performance across the rural and urban areas within each province and across males

and females. The Gross Enrolment Rate (GER) is high as 111 percent in urban areas of Punjab while it is as low as 41 percent in the rural areas of Balochistan. The access to education is also marked by income difference: the over all literacy rate among the poor is 28 percent, while that for the non-poor is 49 percent; the net enrolment rate is 37 percent for the poor as opposed to 59 percent for the non-poor (World Bank 2002). The enrolments remain the lowest among the poorest quintile and dropouts highest among this group. This pattern persists across rural and urban regions of all provinces (World Bank 2002).

Against these challenges the government has failed to increase education facilities at the national level to meet the needs of all. It has also failed to develop strategies to bridge the gap of disparities on basis of income, region, and urban/rural divide. The annual increase in the number of public primary schools is below the need: during 2005-6, only 1221 primary state schools were established (MoF 2006). Emphasis is also being placed on opening state financed non-formal schools through NGOs. The Ministry of Education claims to have already established 10374 Non Formal Basic Education (NFBE) schools across the country and aims to take the number up to 82000 (GoP & UNESCO 2005). There are no independent assessments of the performance of children in these schools but according to government's claims they have a 75 percent pass rate in the government administrated fifth grade examinations (GoP & UNESCO 2005). A National and Four Provincial Education Foundations, which are government established NGOs, have also been setup to promote community schools. Even if these schools are providing acceptable education, they confront the problem of mainstreaming. There are not enough state middle schools to absorb children completing primary in these schools. The NGOs are also unable to upgrade their own schools to middle or secondary due to lack of availability of qualified teachers in remote areas to teach at middle and secondary-levels.

### **Gender Disparities in Education in Pakistan**

The disparities in access on basis of gender also continue after the adopting the strategies for EFA. The female enrollment rates are lower than males and drop out rates among girls are very high, (World Bank 2002).

These gender disparities are compounded not only due to poor supply of educational facilities but also due to cultural values and norms which makes it difficult to access education for girls: for example, religious and cultural emphasis on 'purdah' makes parents reluctant to send girls to schools at a distance. However, the high turn out of girls in NGO run non-formal schools and the recent World Bank sponsored stipend scheme suggests that the cultural values are not against female education, rather parents require institutional arrangements responding to their cultural requirements: for example, establishing schools close to home to ensure female security, providing female teachers to respect purdah (World Bank 2002; Sarwar 2006).

### **Intra-Provincial Educational Disparity in Punjab**

The analysis based on PSLM (2004-05) data suggest that Punjab Education Sector Reform Program has contributed significantly in improving the gross and net enrolment rates in the province, which was a major and immediate focus of these reforms. The lessons learnt from this program indicate that if the financial constraints can be eased, appropriate physical infrastructure facilities can be provided, and committed quality teachers are employed then progress can be accelerated towards substantially improving the educational access and outcomes in Pakistan.

The Punjab Education Sector Reform Program me (PESRP) no doubt has increased the net primary enrolment as well as gross primary enrolment in Punjab but the disparity in net primary enrollment and gross primary enrollment still persists among the districts of Punjab. These disparities in primary enrolment among districts of Punjab causing severely effect to education in Punjab. The disparities are high in lower districts of Punjab as compared to upper and central districts of Punjab.

## LITERATURE REVIEW

Sathar and Lloyd (1994) have discussed the determinants of primary school enrolment and completion among children in Pakistan as well as the level of parental expenditures on children enrolled at primary level and giving particular attention to factors at household and community levels. The secondary data is used based on the 1991 Pakistan Integrated Household Survey (PIHS), which includes a national sample of 4711 households. To analyze the data the Multivariate Analysis technique is used. The dependent variables are primary school enrolment, completion of primary school and ever attended school; and independent variables are education expenditures in form of tuition, uniforms, books, transportation, private tutor, examination fees and others; distance of school, child characteristics in form of child's age, number of total children in a household and birth order of a child; parent's characteristics in form of their literacy; household characteristics in form of mother headship, neither parents headship, number of male and female adults, household income, household expenditures, household cultivated land and household business; and community characteristics in form of availability of public and private schools within one kilometer. This study shows that inequalities across households provide a major explanation for variation among children in primary school levels. The basic decision relating to children's entry into school and completion of the primary level are largely determined by parent's education, particularly that of mothers and household income. Only a small percentage of school-age children in Pakistan having mothers with any education or parents with sufficient income, the cycle of poverty and unequal opportunity is perpetuated. The accessibility of "appropriate" single-sex schools and the availability of quality schools are important additional factors in children's schooling outcomes, particularly for girls in the rural areas. The study also shows that larger numbers of children in a household reduces the probability of primary school completion for children in the urban areas and significantly reduce average educational expenditures. This study concludes by recommending a substantially increased government commitment to primary education, with particular emphasis on the needs of girls. Expected gains would include greater gender equality, a substantial improvement in human development and possibly decline in fertility.

Sabir (2002) has discussed that which income group actually benefits from the government's subsidized education services and how are these benefits distributed between males and females in Pakistan. The "Benefit Incidence Analysis" technique is used to assess gender differentials in public service provision. The secondary data is used and estimates are based on Pakistan Integrated Household Survey (PIHS) 1998-99 and Provincial Demand for Grants 1999-2000. The study shows that government subsidies directed towards primary education are pro poor in all four provinces of Pakistan and females has disadvantage in access to primary education. The government subsidies directed towards higher education poorly targeted and poorest income group receives less than the riches income group and indeed favor those who are better off. Similarly, the gender disparity in access to public subsidy is higher at tertiary level and lowest at primary level, which also reflects poor targeting.

Khan (1997) shows that investment in primary education has higher return for the economy than investment in any physical capital be it agriculture, industry or infrastructure. Hence, if it investments were strictly made on economic criteria of rates of return then primary education should have received the highest priority in the development plans of Pakistan.

Arif et al (1999) have analyzed the effects of poverty and gender on primary school enrolment in Pakistan and they also discussed the determinants of primary school enrolment. The secondary data is used in this study and data source is the Pakistan Socio-economic Survey (PSES) carried by the PIDE (Pakistan Institute of Development Economics). The Logistic Regression and Multivariate analysis technique is used to analyze the data. The study shows that the percentage of enrolled

children who belong to poor households is less than that for the children who belong to non-poor households. The primary school enrolment is very low in rural areas which are 49% as compared to 72% enrolment in urban areas. The negative effect of poverty on primary school enrolment is more pronounced in the rural areas and for girls. The study shows that poverty, gender and place of residence have significant effects on primary school enrolment. The poverty exerts a significant negative influence on a child's probability to enroll in a primary school and this effect can not be entirely explained by the household income. The study shows that poverty affects male and female enrolment rates alike, but this is not the case with the income. The parents' decision to enroll boys in school is not significantly influenced by household income; girl's chances of attending school depend on the availability of additional financial resource.

Hazarika (2001) has analyzed gender differences in the sensitivity of primary school enrollment to the costs of post-primary schooling in rural Pakistan. The study shows that all measures of the costs of schooling, only distance from primary school is found to be a statistically significant determinant of female primary school enrollment.

Sawada and Locksbin (2001) have analyzed the household schooling decisions in rural Pakistan. This study is based on the field survey to investigate household decisions about schooling in rural Pakistan. This study shows that hiring more female teachers and providing more primary schools for girls closer to villages will improve the chances of rural Pakistani girls entering school and staying enrolled.

Although the Punjab Education Sector Reform Program causes to increase the net and primary enrolment in the Punjab but the intra-provincial disparity of net and gross primary enrolment still persists. The Punjab province can be divided into three main regions upper, central and lower based on their socioeconomic characteristics. The people of upper Punjab are mainly working in service sector. The people of central Punjab are mainly related to industries. The people of lower Punjab are mainly related to agriculture.

Conflict theory suggests that property ownership (economic structure) determines social and political structure. Thus, inequality in the economic system permeates the social and political, and by extension, educational systems.

According to conflict theory, inequality issues in Punjab education may simply be a symptom of the social, economic and political disparities in which education is found deeply rooted. The Upper and Central Punjab are more modernized, urbanized and advanced industrially and technologically than the Lower Punjab. Conflict theory therefore would point to the education system as a reflection of these inequalities, and that educational development, either progressing or lagging behind, should be explained by the larger social, economic and political context.

Critical social theory shares with conflict theory the point of view that inequality is inherent in education. Nonetheless, whereas conflict theory attributes educational inequality to the larger social, economic and political structures, critical social theory seeks the source of inequality in the education system itself; according to critical social theory, in any system there is co-existence of two opposite groups of objects, entities or people, namely the oppressors and the oppressed.

## **DATA METHODOLOGY**

In this study, the secondary data is used for 34 districts of Punjab as follows;

- Net Primary School Enrolment for age 5-9 years
- Adult literacy Rate for Males (15years & older)

- Adult literacy Rate for Females (15years & older)

**Source:** Pakistan Social and Living Standards Measurement Survey (PSLM) 2004-05

- No. of Schools at Primary level
- No. of Teachers at Primary level

**Source:** Academy of Educational Planning & Management (AEPAM) 2003-04

- Per Capita Income per Month in Pakistani rupees
- Poverty Status (Percentage of people living below Rs.1000 per month)

**Source:** Planning and Development Department, Govt. of Punjab.

### Econometric Analysis

I have used some variables such as number of primary schools, number of teachers in primary schools, average per capita income per month, poverty status (percentage of population living below Rs.1000 per month), male adult literacy rate (age 15 years and older) and female adult literacy rate (age 15 years and older) as determinants of disparity in Net Primary Enrolment in the districts of Punjab. For econometric analysis, I used the OLS (Ordinary Least Squares) method by the help of computer software SPSS (Statistical Package for Social Science) to find out the results.

### Hypothesis

The disparity in Net Primary School Enrolment has negative relationship with number of schools, number of teachers, male adult literacy rate and female adult literacy rate; and positive relationship with the per capita income and poverty status.

### Model

The model used for the econometric analysis is given in the following,

$$DNPE = f(NOS, NOT, PCI, MALR, FALR)$$

**Table 1: The Definitions of Variables and their Expected Sign are given Below**

Variables	Description	Expected Sign
<b>Dependent Variable</b>		
DNPE	Disparity in Net Primary School Enrolment	
<b>Independent Variables</b>		
NOS	Number of Schools	Negative
NOT	Number of Teachers	Negative
PCI	Per Capita Income	Positive
PS	Poverty Status	Positive
MALR	Male Adult Literacy	Negative
FALR	Female Adult Literacy	Negative

The Model is given below

$$DNPE = \beta_0 + \beta_1 NOS + \beta_2 NOT + \beta_3 PCI + \beta_4 PS + \beta_5 MALR + \beta_6 FALR + \mu$$

## RESULTS AND DISCUSSIONS

In the following table results of regression are given,

**Table 2: Econometric Results of the Model**

Variables	Coefficients	Significant Level
Constant	-20.934 (-1.16)	.256
NOS	-.008 (-1.147)	.261
NOT	-.00255 (.987)	.333
PCI	.02172 (3.705)	.001
PS	.736 (4.222)	.0
MALR	-.455 (-2.241)	.022
FALR	-.253 (-1.553)	.132
R <sup>2</sup>	.792	
F	17.110	

t values are given in parenthesis.

## DISCUSSIONS

The discussions of the econometric results are given as follows:

- **Number of Schools**

Theoretically disparity in net primary school enrolment and number of school are negatively related. As number of school increases then disparity in net primary school enrollment decreases. In Table 2 the coefficient of NOS is negative, which confirm theoretical expectation. The magnitude of coefficient of NOS is -.008 which indicates that one unit increase in NOS would leads to -.008 unit decrease in DNPE. The variable NOS is not significant. Khan and Ali (2005) shows that if certain facilities and institutions such as schools are not locally available and there are social taboos or difficulties about girls' use of non-local facilities, or if there are affirmative action policies in place for girl's participation in certain levels of education, household's behavior towards girls may be negatively biased not due to parental discrimination per se but rather due to these supply side conditions.

- **Number of Teachers**

Theoretically disparity in net primary school enrolment and number of teachers are negatively related. As number of teachers increases then disparity in net primary school enrollment decreases. In Table 2 the coefficient of NOT is negative, which confirm theoretical expectation. The magnitude of coefficient of NOT is -.00255 which indicates that one unit increase in NOT would leads to -.00255 unit decreases in DNPE. The variable NOT is highly insignificant. But literature shows that the biggest challenges for the government in improving quality is to ensure provision of required number of teachers within state schools and to improve pre and in-service teachers training. There are insufficient numbers of teachers in state schools: during 2004-2005, the average teacher school ratio in primary schools in Punjab and NWFP was 3 and 2 (Shami et al 2006). Given that many primary schools in the city areas have more than five teachers as they are popular postings and are used as political bribes, the average of 2 to 3 teachers per school means that some schools in the rural areas end up being multi-grade one-teacher schools (Aly 2007). This means that in some government schools one teacher ends up teaching children from first to five grades and unlike the teachers in the non-formal schools does not even get any specialized training in multi-grade teaching.



- **Per Capita Income**

Regression result posits that there exists a positive relationship between disparity in net primary school enrolment and per capita income, which approved theoretical expectations. It shows that increase in per capita income alternatively the growth is like that it supports the disparity, higher growth will result into disparity. There is a need to redirect the growth so that disparity may be declined. The magnitude of coefficient PCI is .021 indicate the one unit increase in PCI leads to .021 unit increase in DNPE. The variable PCI is highly significant. Deon (2000) suggested that gaps in educational enrollment and attainment across different wealth groups are large in almost all developing countries.

- **Poverty Status**

Variable Poverty status depicts that there exist a positive relation between disparity in net primary school enrolment and poverty status. It shows that if PS of individuals increases then the disparity in net primary school enrolment also increases. The poverty status of people also means that they have poor conditions of living, less access to health facilities and other opportunities of daily life. The poverty status of parents no doubt affects the children's health and their nutrition level which decreases their enrolment in the primary schools. From Table 2 the value of coefficient of PS is .736 and highly significant. It shows that one unit change in PS would leads to .736 unit change in DNPE. Alderman, Behrman, Lavy and Menon (1997) have showed that poor health and nutrition conditions negatively affect the children primary schooling in rural Pakistan. Maluccio, Hoddinott, Behrman, Martorell, Quisumbing and Stein (2006) have showed that childhood nutrition have significantly effected the educational achievement for both males and females among Guatemalan adults.

- **Male Adult Literacy Rate**

The coefficient of MALR shows that there is a negative relationship between disparity in net primary enrolment and male adult literacy rate, which is theoretically consistent. It shows that if the male adult literacy rate increases in the districts of Punjab then the disparity in net primary school enrolment decreases. The magnitude of coefficient of MALR is -.455 and is highly significant. Generally, in Punjab households are headed by the males, hence if they are educated then there should be an increase in the primary school enrolment. Khan et al (2005) shows that parents education (separately of fathers and mothers) has positive impact (as a continuous variable---number of years of education) on the sons and daughter's schooling but the impact on son's schooling is stronger than daughters.

- **Female Adult Literacy Rate**

The coefficient FALR posits that there exists a negative relationship between disparity in net primary school enrolment and female adult literacy rate. It shows that if the female adult literacy rate increases in the districts of Punjab then disparity in net primary school enrolment decreases. In table 2 the coefficient of FALR is -.253 and significant at 10 percent level. This value shows that one unit change in FALR would leads to change .253 units in DNPE.

## CONCLUSIONS

The primary education has a very important role in the life of individuals because it has higher returns. In Punjab province the enrolment in the primary schools has improved during the last few years but there is still present a wide disparity in net primary enrolment among the upper, central and lower districts of Punjab. Our analysis shows that there exists a lower net primary enrolment in the districts of lower Punjab causing a high disparity in net primary enrolment as compared to the

upper and central districts of Punjab. Our econometric analysis shows that disparity in net primary enrolment among the districts of Punjab has a negative relationship with number of schools, number of teachers, male adult literacy rate and female adult literacy rate; and positive relationship with the per capita income and poverty status.

## POLICY RECOMMENDATIONS

The policy recommendations are given below.

- The number of primary schools should be increased in the districts of Punjab where the disparity in net primary enrolment is high.
- To increase the quality of education measures should be taken.
- To decrease the gap in the per capita income among the districts of Punjab measures should be taken which will increase the children schooling.
- Measures should be taken to increase the adult literacy rate in high primary enrolment disparity districts.
- In Pakistan there exists lot of ghost school or zero efficiency. The govt should take instant action for this.

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