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**EDUCATIONAL DISPARITIES AMONG THE DISTRICTS OF  
PUNJAB (PAKISTAN)**

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**ABSTRACT:**

Present study investigates the status of education and educational disparities across the districts of Punjab. There are 36 districts in Punjab province; we have calculated Education Index (EI) for thirty-five districts of Punjab, one district Chiniot is excluded due to some data constraints. Districts have been ranked based on their values of EI. The results of our study indicate that huge educational disparities exist in terms of EI across the districts of Punjab. Some districts like Rawalpindi and Lahore have high educational status with high EI values whereas some districts like Bahawalpur, Bahawalnagar, Dera Gazi Khan, Rahim Yar Khan, Lodhran and Rajanpur are lagging behind education with low EI values. Moreover, districts that have more distance from two capital cities Islamabad and Lahore have lower EI values. It indicates that may public provision of social services have remained in favor of those districts that are much closer to capital cities as compared to other districts. Policy to increase administrative units may reduce disparities in education among the districts of Punjab. Therefore, the districts with poor educational status required policy interventions to reduce educational disparities in Western and Southern regions of

Punjab. Because the dismissal prevailing situations can create severe rivalry and distrust among different regions within Punjab Province.

### **Introduction:**

Improvement in education sector is the basic task for all the developing economies of the world. It has great importance as one of the development outcomes. Development may mean different things to different people. Traditionally Gross Domestic Product, (GDP) per capita and GDP per capita growth have been used as an indicator to measure economic progress and human well-being of a society. Economic growth had been the primary focus of the economists and development planners. Growth in capital stock was considered as a mean and growth in GDP per capita was taken as an end. Per capita income and growth of per capita income were frequently used to compare the well-being of the people of the different countries and regions (UNDP, 1990). Yet, it hides different aspects of socio-economic conditions within a society. Dasgupta and Weale (1992) mention that per capita income is not a suitable measure to inspect the well-being of a social set up. Because it does not necessarily tell about prevailing social conditions within a society. Anand (1994) points out that income approach is a narrow approach to measure well-being of people and to examine the development of a society. According to him, people and their lives is the real end of all development policies. Income has instrumental importance to improve the quality of life of the people, but it cannot be a direct measure of living standard.

So, in this study regional imbalances in education have been investigated by calculating Education Index (EI) among the districts of Punjab, Pakistan. It is essential to study disparities in different development outcomes because it may create rivalry and distrust among the different regions that can be dangerous for social integration and cohesion (Pervaiz and Chaudhary, 2010). The rivalry and distrust can hinder peoples' development and wellbeing through different ways.

### **Brief Review of Some Studies Related to Development Disparities:**

There have been number of studies that are conducted around the world and across the specific regions which discuss the issues of disparities. Some of these were about the measurement of education, health and human development and other were related to disparities in education, health and human development. The studies (Mera, 1973; Hardy, 1980; Antle, 1983; Eberts, 1986; Kim, 1995; Bhattacharya, 1998; UNDP, 2003; Adams, 2006; Siddique, 2008; Szirmai, 2009; Adenutsi, 2010; Yang, 2011) were important in this regard.

United Nations Development Program (UNDP) calculated Human Development Index (HDI) and published annual human development reports. These reports examined the status of human development across the countries and across the regions of the world. The reports indicated that there were human development disparities across the countries and across the regions of the world. Norbakhsh (2002) examined the regional human development disparities in Iran. The study calculated HDI for provinces of Iran and ranked the provinces according to their human development status. The study used literacy and combined enrollment rate as proxy for education index, life expectancy for health and income per capita for income index. The results indicated that some provinces performed well in terms of HDI and some other provinces had low human development status. Human development disparities existed across the provinces of Iran.

UNDP (2003) examined human development disparities among the provinces as well as among the districts of Pakistan. The report calculated HDI for the year 1998 with three

basic dimensions (education, health and income) of human development. The report used literacy rate and primary enrollment rate for education index. The health index constructed for provinces as well as for districts with infant survival rate and immunization rate. The shortcoming of health index was that provincial infant survival rates were used for the respective districts which were meaningless to compare human development disparities across the districts. The report used agricultural crop value and manufacturing value added as proxy to calculate GDP per capita at districts level. The results revealed that human development disparities existed among the provinces and within provinces. Human development disparities were investigated by UNDP (2005) across the districts of Karnataka state in India. The report calculated HDI after using infant survival rate for health index, adult literacy, primary and secondary enrollment rate for education index and per capita income for income index. The report also ranked the districts according to their performance in human development. The results showed that there were huge human development gaps among the districts. The HDI value of Raichur district was 0.547 whereas HDI value of Bangalore Urban was 0.753.

Jamal and Khan (2007) investigated human development disparities across the provinces as well as across the districts of Pakistan. The study calculated HDI for the provinces as well as for the districts. The study used some proxies for three dimensions, adult literacy and combined (primary, secondary and tertiary) enrollment rate for education whereas age and sex specific death rates to compute the probability for life expectancy at birth and immunization rates for the construction of health index. The income index for districts was constructed using agricultural crop value and manufacturing value added. The deficiency in the construction of health index was that provincial level health proxy applied for respective districts. The study calculated HDI at two points of time 1998 and 2005 and analyzed inter-temporal change in human development across the provinces and across the districts of Pakistan. According to their results, HDI values of provinces and districts improved significantly but some provinces and districts improved more as compared to other provinces and districts. Punjab had high HDI value as compared to other provinces but growth in HDI from 1998 to 2005 of Khyber Pakhtunkhwa (KPK) was high. There was no significant reduction in human development disparities across the provinces as well as across the districts of Pakistan from 1998 to 2005. Hardly, there have been two studies UNDP (2003) and Jamal and Khan (2007) which examine disparities in human development among the districts and provinces of Pakistan. Both have been a deficiency in measurement of district specific health outcomes by using the value of provincial health indicators for each district. So, the issue of measuring human development disparities across the districts of Pakistan has been unresolved.

**Calculation of Education Index (EI):**

Education index is constructed using combined (primary, secondary and tertiary) enrollment rate of age cohort 5 to 24 years and adult literacy rate of 15 years and above population. Both variables are normalized by using their actual, maximum and minimum values. 100 percent is considered as maximum and 0 percent as minimum for educational attainments. Composite education index combines these two normalized variables by assigning two-third weightage to literacy rate of ten years and above population and one-third weightage to combine enrollment. Equation 1, 2 and 3 explain the methodology of calculating education index.

Literacy Index (LI) =  $\frac{\text{actual} - \text{minimum}}{\text{maximum} - \text{minimum}}$  ..... (1)

Combined Enrollment Index (EI) =  $\frac{\text{actual} - \text{minimum}}{\text{maximum} - \text{minimum}}$  ..... (2)

Education Index (EDI) =  $\frac{2}{3} \text{ (LI)} + \frac{1}{3} \text{ (EI)}$  ..... (3)

**Data Source:**

Researchers used cross sectional data for thirty-five districts of Punjab for the year of 2014. The data for Education Index(EI)have collected from different sources. The data of adult literacy rate and combined enrollment rate for thirty-five districts has taken from Pakistan Social and Living Standard Measurements Survey (PSLM, 2014). PSLM (2014) survey is conducted by Pakistan Bureau of Statistics (PBS) at district level with 76546 households sample from entire country to achieve Millennium Development Goals. This survey covered 14,549 enumeration blocks and 25,875 villages from Punjab.

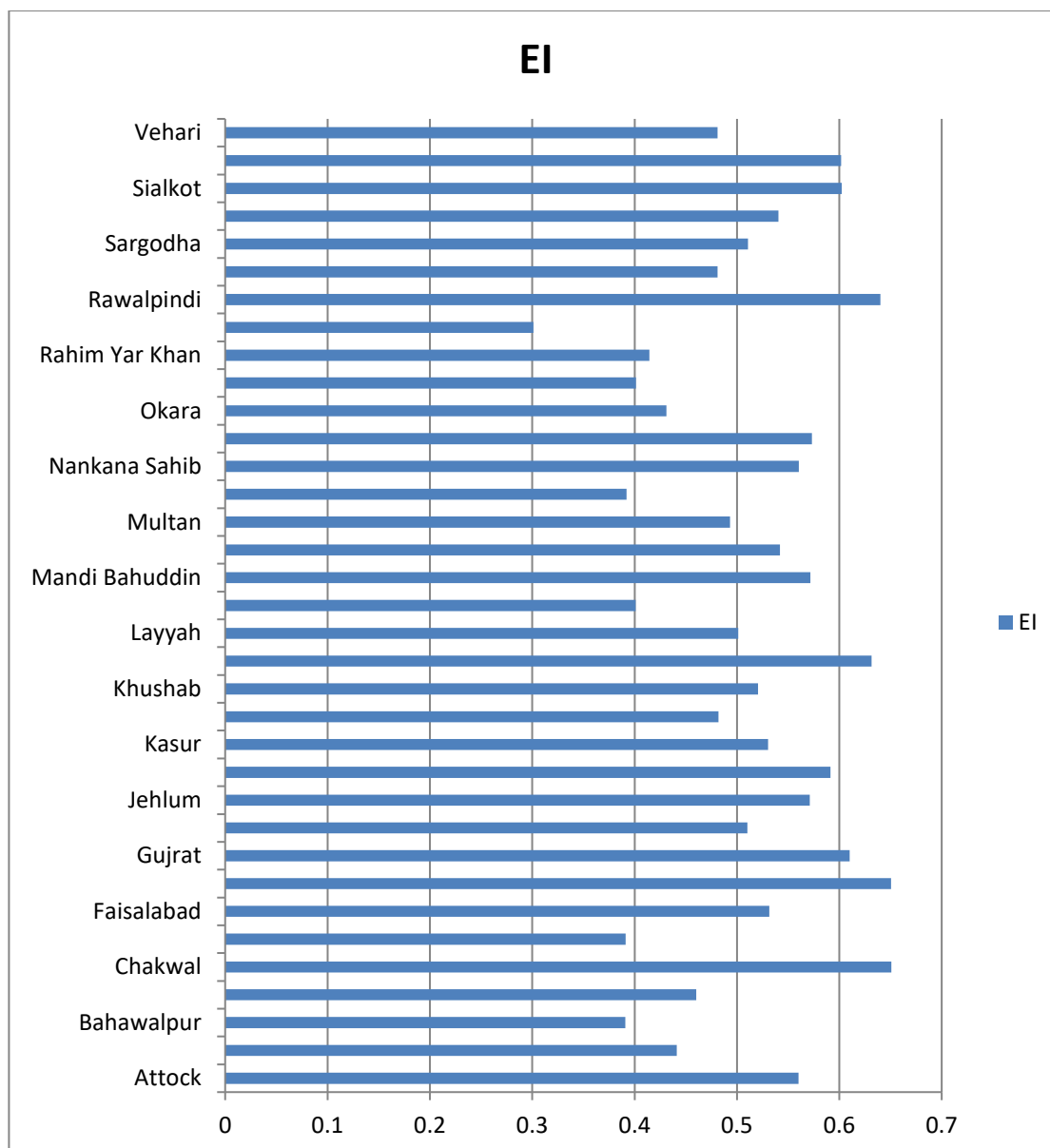
**Empirical Results:**

Empirical results of Education Index (EI) presented in this section. Thirty-five districts of Punjab are ranked on the basis of values of EI. These ranks indicate disparities in education among the districts of Punjab.The results of table 1and Fig 1 reveal that Rahim Yar Khan, D.G Khan, Muzaffar Garh, Layyah, Vehari, Bahawalpur, Bahawalnagar, Lodhran, Pakpattan and Rajanpur have lower performance in terms of EI. However, Chakwal, Rawalpindi, Lahore, Narowal, Gujranwala, Gujrat and Mandi Bahuddin have high educational performance as compared to other districts. The lower EI values of southern districts show that southern districts have been neglected in development process through public provision of social services. Moreover, results highlight that the districts having more distance from capital cities (Islamabad and Lahore) having lower level of education. The EI value of Rawalpindi is 0.6507, Lahore 0.6505, Chakwal 0.6401, Lodhran 0.4011, Muzaffar Garh 0.3921, Dera Gazi Khan 0.3913 and Rajanpur 0.3011. The results reveal that there is huge difference between Rawalpindi and Rajanpur in status of education.

**Table 1: Ranking of the Districts based on EI**

Districts	EI		Districts	EI	
	Value	RANK		Value	RANK
PUNJAB	0.5241		Khushab	0.5206	18
Rawalpindi	0.6507	1	Sargodha	0.5108	19
Lahore	0.6505	2	Hafizabad	0.5103	20
Chakwal	0.6401	3	Layyah	0.5013	21
Gujranwala	0.6315	4	Multan	0.4931	22
Gujrat	0.6101	5	Khanewal	0.4819	23
Sialkot	0.6023	6	Vehari	0.4811	24
Toba Take Singh	0.6017	7	Sahiwal	0.4809	25
Jhang	0.5914	8	Bhakhar	0.4603	26
Narowal	0.5732	9	Bahawalnager	0.4412	27
Mandi Bahuddin	0.5717	10	Okara	0.4311	28
Jhelum	0.5711	11	Rahim Yar Khan	0.4143	29
Nankana Sahib	0.5605	12	Pakpatten	0.4012	30
Attock	0.5602	13	Lodhran	0.4011	31
Mianwali	0.5421	14	Muzaffar Garh	0.3921	32
Sheikhupura	0.5405	15	Dera Gazi Khan	0.3913	33
Faisalabad	0.5317	16	Bahawalpur	0.3909	34
Kasur	0.5304	17	Rajanpur	0.3011	35

Source: Author’s Calculation



**Figure 1:** Educational Disparities among the Districts of Punjab, Pakistan

### Conclusion:

This study calculated Education Index (EI) and examined the status of education and educational disparities across the districts of Punjab. Thirty-five (35) districts of Punjab province were considered for the study and cross-sectional data were used. The study found that there were high educational disparities in terms of Education Index (EI). The results of EI revealed that the performance of Punjab in terms of EI was not comparable with high EI ranked nations. According to UNDP categorization twenty-six districts had medium and nine districts had low educational status and there were massive educational disparities among the districts. The analysis revealed that some districts achieved high level of education with high literacy and high primary, secondary and tertiary enrollment rates such as Rawalpindi, Lahore, Chakwal and Gujranwala. On the other hand, some other districts were lagging behind in education with low literacy and lower primary, secondary and tertiary enrollment rates such as Layyah, Vehari, Muzaffar Garh, Sargodha, D.G Khan, Pakpattan, Bahawalnager, Lodhran, Bahawalpur and Rajanpur, most of that districts

belonged to the south region of Punjab. The huge differences in EI indicate that there is a need to take some suitable steps at district level in Punjab. The improvement can be in terms of education facilities including schools, colleges and universities to improve educational status of the districts especially in the districts of south region in Punjab. Out of nine districts which were categorized in low educational category, 7 districts belonged to the south region of Punjab. Stakeholders in Punjab government may empower the masses across the districts by improving their income level, education, health and social services. Allocation of developmental budgets for regions in Punjab is based on different criteria. Under development is also one of the criteria for the allocation of developmental budget for different regions. The government of Punjab may provide and increase developmental budget for districts that have low level of education i.e. Bahawalnagar, Bahawalpur, D. G. Khan, Layyah, Lodhran, Muzaffar Garh, Pakpattan, Rajanpur, Sargodha, and Vehari.

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