

Regional dimension of gender disparity in Rajasthan

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Abstract: The paper examines the inter-district, intra-district gender inequalities and intra population equity condition in education in Rajasthan for period of 2011. The Disparity Index, Location Quotient and Index of Gender Equity have been used. The empirical findings by and large support the hypothesis that (i) the inter district variation in literacy is higher for female and rural area than their counterparts (male and urban area); (ii) there exists wide gender disparity in rural and urban area; (iii) the districts which show high gender disparity also show high location quotient of gender disparity.

Introduction

Development of any economy is usually characterised by regional inequalities. Different scholars have different view point regarding inequality. Some believe that convergence between regions will take place (Mathur, 2003). As contrary to this works of Gunnar Myrdal, Andre Gunder Frank show that divergence between regions take place. Another model suggests the divergence occurs only in initial phase followed by convergence in the later phase (Hirschman, 1958 & Williamson, 1968, Barro and Sala -i-Martin, 1992, Sala-i- Martin, 1996). Hewings (2006) argues that both convergence and divergence can exist simultaneously depending upon the scale used for the analysis. Development of human capital receives high priority today all over the world. This is due to the realisation that mere growth of GNP does not automatically lead to over all development. The report of UNDP(1990) placed human being at the centre of all development programme. It considered standard of living, education and health of human being as the ultimate objectives of the development. Apart from these UNDP have introduced new indicators like Gender Development Index in 1995, Gender Empowerment Index in 1995, Multidimensional Poverty Index in 2010, Gender Inequality Index in 2010, Inequality Adjusted Human Development Index in 2010, Multidimensional Exclusion Index in 2011 to measure different aspects of human development, but still the basic needs of people are considered to be housing, clothing, food and minimal education. Many people of world are still deprived to these basic needs. This paper attempts to examine the extent of gender educational disparity in inter-district and intra-district contexts in the state of Rajasthan, as Rajasthan recorded the highest gender difference of 27.85% in literacy in the entire country.

The Education Commission (1964-66), National Policy of Education (1968), New Education Policy (1986) and Evaluation Education Policy (1992) gave emphasis to reduce the disparities between male and female, between different social groups of population and between rural and urban area and suggested measures for equalisation of educational opportunities. But still there are sufficient evidences of inter-state, inter-district and intra-district disparity in education in India. . Since disparities are more pronounced between males and females, rural and urban area, this paper is an attempt to look at inter-district and intra-district gender disparity in rural and urban area of Rajasthan. Here literacy is taken as a proxy indicator for education.

Objectives

The main objectives of the study are:

- (i) To examine the inter-district variation in literacy rate in Rajasthan.
- (ii) To estimate the disparity in literacy rate between male and female in rural and urban areas.
- (iii) To look at the inter-district female's equity condition with respect to their population and literacy rate.
- (iv) To look at the district's condition in context to overall state's gender disparity condition.

Hypothesis

Keeping in view the objectives of the study, the validity of the following hypothesis are also tested empirically.

- (i) The inter district variation in literacy is higher for female and rural area than their counterparts (male and urban area).
- (ii) There exists wide gender disparity in rural and urban area.
- (iii) The districts which show high gender disparity also show high location quotient of gender disparity.

Methodology

I. The Data

As the study relied upon secondary data, the required information on literacy rate is collected from the census of India, 2011 for different districts of Rajasthan. The district is considered as the region.

II. The Methods

The inter-district variability in literacy rate is estimated by standard deviation and co-efficient of variation for 2011 census year for male and female in rural and urban areas. In order to estimate the disparity in literacy rates the disparity index is used which may be written as follows:

$$\text{Disparity Index} = (X1 / X2) - 1$$

Where, $X2 > X1$

X1= Female Literacy Rate

X2 = Male Literacy Rate

The zero value will show that there is no disparity among two sections, the higher the value more will be disparity. The negative value will show the pathetic condition for women and positive value will show the bad condition for men. In order to estimate the female equity in population and literacy the Index of gender equity is used which can be written as follows:

$$\text{Index of Gender Equity (IGE)} = 100 \times \frac{\text{Share of female in literate population}}{\text{Share of female in population}}$$

A value of 100 for the index reflects a complete absence of inequities. A value of less than 100 shows less than proportionate representation of female in literate population and the opposite if the calculated value of the index is more than 100. In order to look at the region's overall condition with respect to the whole, the Location Quotient has been used. It can be written as follows:

$$\text{Location Quotient} = (a / b) / (A / B)$$

Where,

a = Amount of a activity in a region

b = Amount of total activities in a region

A = Total amount of a activity in whole region

B = Total amount of all activities in whole region

Here a/b represents the disparity index of a district and A/B represents the disparity index for the state. It is a measure of relative concentration in a region to whole. If value is 1 then it shows the district has same concentration as the state has. If value is more than unity then the district has more concentration than state and vice versa.

The Empirical Results

The section presents the inter and intra district gender disparity in literacy rates in Rajasthan.

Intra-District Disparity

The disparity in male and female literacy is calculated with the help of Disparity Index. The results are shown in Table-1.

Table -1 Gender Disparity Index in Rajasthan

	Disparity Index		
	Overall	Rural	Urban
RAJASTHAN	-0.34	-0.40	-0.20
Ganganagar	-0.24	-0.27	-0.16
Hanumangarh	-0.28	-0.30	-0.20
Bikaner	-0.30	-0.37	-0.19
Churu	-0.31	-0.34	-0.26

Jhunjhunun	-0.30	-0.31	-0.26
Alwar	-0.33	-0.36	-0.18
Bharatpur	-0.35	-0.39	-0.22
Dhaulpur	-0.33	-0.35	-0.23
Karauli	-0.40	-0.43	-0.29
Sawai Madhopur	-0.42	-0.47	-0.25
Dausa	-0.37	-0.40	-0.24
Jaipur	-0.26	-0.37	-0.16
Sikar	-0.32	-0.34	-0.25
Nagaur	-0.38	-0.41	-0.28
Jodhpur	-0.34	-0.45	-0.18
Jaisalmer	-0.45	-0.49	-0.24
Barmer	-0.43	-0.44	-0.25
Jalor	-0.46	-0.47	-0.32
Sirohi	-0.43	-0.49	-0.25
Pali	-0.38	-0.41	-0.27
Ajmer	-0.32	-0.46	-0.16
Tonk	-0.41	-0.47	-0.22
Bundi	-0.38	-0.43	-0.23
Bhilwara	-0.37	-0.43	-0.19
Rajsamand	-0.39	-0.43	-0.21
Dungarpur	-0.37	-0.39	-0.16
Banswara	-0.38	-0.41	-0.13
Chittaurgarh	-0.39	-0.45	-0.18
Kota	-0.24	-0.34	-0.17
Baran	-0.35	-0.39	-0.23
Jhalawar	-0.39	-0.43	-0.19
Udaipur	-0.35	-0.43	-0.13
Pratapgarh	-0.39	-0.42	-0.16

The disparity index clearly shows that state has average disparity value is -0.34, while the rural and urban area experience disparity values -0.40 and -0.20 respectively. The values show that in rural area the disparity is highest, while negative values show that female have pathetic conditions than their counterparts in respect to literacy. All categories experience the negative values which show that in state the female are more disparate than male in literacy. In overall disparity in state Kota, Ganganagar, Jaipur, Hanumangarh, Jhunjhunun, Bikaner, Churu, Sikar, Ajmer, Dhaulpur, Alwar can be said better districts. Kota and Ganaganagar experience the least disparity -0.24 followed by Jaipur while Jalor experiences the highest disparity -0.46. In case of rural disparity Ganganagar experience the least disparity -0.27 while the highest disparity is experienced by Sirohi and Jaisalmer which is -0.49. In case of urban disparity the lowest disparity -0.13 is observed in Banswara & Udaipur districts while the highest disparity -0.32 is observed in the Jalor district. In overall state condition as well as in rural area the difference of 0.22 is observed in highest and lowest disparity, while in urban area can be said less varied as the difference in urban area is 0.19. The extreme values in disparity are experienced in rural area of Sirohi and Jaiselmer -0.49 to urban area of Banswara and Udaipur -0.13. Ultimately a difference of around 0.36 is observed in the laggard area to the best area of the state. Hence the hypothesis that the there is wide gender disparity in rural urban area is proved.

The state observes a gender disparity difference of 0.20 in rural and urban area. Jaipur, Sawai Madhopur, Rajasmand, Dungarpur, Sirohi, Bhilwara, Jhalawar, Jaisalmer, Tonk, Pratapgarh, Jodhpur, Chittaurgarh, Banswara, Ajmer, Udaipur observe higher difference between rural-urban disparity than the state. Hence there is wide difference in gender disparity is also observed in rural and urban area.

Intra-District Gender Equity

The gender equity is calculated for the female population. It is shown with the help of gender equity index. The results are shown in Table-2.

Table -2: Index of Gender Equity in Rajasthan

	Index of Gender Equity		
	Overall	Rural	Urban
RAJASTHAN	79.17	74.87	89.08
Ganganagar	85.99	83.84	90.84
Hanumangarh	83.38	81.81	88.89
Bikaner	81.7	76.18	89.19
Churu	81.28	79.68	84.78
Jhunjhunun	83.06	82.3	85.57
Alwar	79.82	77.17	89.73
Bharatpur	77.47	74.52	87.37
Dhaulpur	79.03	76.76	86.72
Karauli	73.48	71.57	82.72
Sawai Madhopur	72.86	68.68	85.45
Dausa	76.53	74.76	86.49
Jaipur	85.2	76.81	91.42
Sikar	81.73	80.37	85.92
Nagaur	76.55	74.6	83.61
Jodhpur	78.82	70.66	89.92
Jaisalmer	69.18	65.91	84.11
Barmer	71.85	70.33	85.22
Jalor	70.59	69.44	80.34
Sirohi	72.25	67.09	85.3
Pali	77.56	75.13	84.65
Ajmer	80.69	70.24	91.53
Tonk	74.21	68.66	88.55
Bundi	75.9	72.04	86.85
Bhilwara	77.25	72.83	89.17
Rajsamand	76.57	73.52	88.67
Dungarpur	78.24	76.87	92.03
Banswara	76.85	74.71	93.72
Chittaurgarh	75.79	71.18	90.12
Kota	86.13	78.82	90.27
Baran	78.09	75.22	86.77
Jhalawar	75.9	72.26	89.28
Udaipur	78.65	72.77	93.25
Pratapgarh	76.08	73.79	91.45

Overall average value for the gender equity index is 79.17 %. The rural area experience value 74.87%, while for urban area it is 89.08%. Considering the overall condition for state Kota, Ganganagar, Jaipur, Hanumangarh, Jhunjhunun, Sikar, Bikaner, Churu, Ajmer, Alwar can be said better districts as they have good ratio between literate female and overall female in the district. Kota shows the highest value of 86.13% while the least value 69.18% is observed by Jaisalmer. In rural area 13 districts observe the better condition than the state's value. The highest value of 83.84% is observed in Ganganagar, while the lowest value 65.91% is found in Jaisalmer. In urban area 14 districts observe better condition than the state's value. The highest value 93.72% is observed in Banswara, while the least value 80.34% is observed in Jalor. The highest difference in equity is observed in rural area while the lowest difference is observed in urban area which are 17.93% and 13.38% respectively. Kota, Ganganagar, Jaipur, Bikaner, Alwar are the districts which show better equity condition for female in literacy in all area be it rural, urban or overall state condition.

Inter- District inequality

The inter- district variation in literacy rates are estimated in terms of co-efficient of variations. These results are reflected in Table-3.

Table-3: Mean and Co-efficient of variation in Rajasthan (%)

	Overall		Rural		Urban	
	Average	C.V.	Average	C.V.	Average	C.V.
Male	79.19	6.44	76.16	7.33	87.91	3.56
Female	52.12	13.64	45.8	14.53	70.73	8.49

Gender literacy rate in rural & urban area

	Overall		Rural		Urban	
	Female	Male	Female	Male	Female	Male
Ganganagar	59.70	78.50	55.31	75.90	71.31	85.30
Hanumangarh	55.84	77.41	53.12	75.94	66.79	83.32
Bikaner	53.23	75.90	44.32	70.61	69.54	85.66
Churu	54.04	78.78	51.12	76.95	61.30	83.38
Jhunjhunun	60.95	86.90	59.77	86.75	65.03	87.39
Alwar	56.25	83.75	52.16	82.08	74.67	91.02
Bharatpur	54.24	84.10	50.53	83.09	68.78	88.10
Dhaulpur	54.67	81.22	52.42	81.21	62.90	81.25
Karauli	48.61	81.41	46.52	80.93	60.05	84.14
Sawai Madhopur	47.51	81.51	42.43	79.43	67.22	89.76
Dausa	51.93	82.98	49.38	81.81	69.41	90.99
Jaipur	64.02	86.05	51.67	82.46	75.08	89.20
Sikar	58.23	85.11	56.35	84.89	64.32	85.81
Nagaur	47.82	77.17	45.18	76.04	58.84	81.87
Jodhpur	51.83	78.95	41.16	74.57	71.26	86.75
Jaisalmer	39.71	72.04	35.54	69.42	66.17	87.44
Barmer	40.63	70.86	38.55	69.44	66.64	88.63
Jalor	38.47	70.67	36.78	69.38	56.95	84.15
Sirohi	39.73	69.98	32.66	64.62	66.94	89.31
Pali	48.01	76.81	43.48	73.64	63.89	87.10
Ajmer	55.68	82.44	41.29	76.45	76.50	90.85
Tonk	45.45	77.12	39.66	75.46	64.76	82.94
Bundi	46.55	75.44	41.16	72.30	67.42	87.70
Bhilwara	47.21	75.27	40.58	71.32	71.79	89.04
Rajsamand	47.95	78.42	43.32	75.86	72.27	91.07
Dungarpur	46.16	72.88	43.96	71.50	77.11	91.39
Banswara	43.06	69.48	40.10	67.70	79.26	91.00
Chittaurgarh	46.53	76.61	40.24	73.26	74.27	90.81
Kota	65.87	86.31	53.95	82.21	73.71	88.91
Baran	51.96	80.35	47.78	78.36	67.48	87.77
Jhalawar	46.53	75.75	41.51	73.01	72.11	89.54
Udaipur	48.45	74.74	39.82	69.64	81.24	93.39
Pratapgarh	42.35	69.50	39.04	67.29	77.15	92.20

The state experiences higher literacy rates for male and for urban area than their counterparts (female and rural area). The state's average literacy rates for male and female are 79.19% and 52.12%. The literacy of male and female in rural area is 76.16% , 45.80% respectively ,while in urban area the respective value are 89.91%, 70.73%. In overall state condition the lowest literacy rate for female is observed in Jalor that is 38.47% while the highest rate 65.87% is found in Kota. For male the highest literacy 86.90% is found in Jhunjhunun while the lowest literacy rate is 69.48% found in

Banswara. In rural area the district of Sirohi observes the lowest literacy rates for both male and female, 64.62% and 32.66% respectively. The district of Jhunjhunun observes the highest literacy rate for both male and female, 86.75% and 59.77% respectively. In urban area Udaipur observes the highest literacy for both male and female while Jalor and Dhaulpur observe the lowest value for female and male respectively. The coefficient of variation show high value for female and rural area than their counterparts (male and urban area). The coefficient of variation for female is 13.64%, 14.53%, 8.49% for overall, rural and urban area respectively, while the respective value for male are 6.44%, 7.33% and 3.56%. Hence the empirical result proves the hypothesis that the inter district variation in literacy is higher for female and rural area than their counterparts (male and urban area).

Inter- District Disparity

Inter-District Disparity condition with respect to state's condition is observed by Location Quotient. The results are presented in Table-4.

Table -4 Location Quotient in Rajasthan

RAJASTHAN	Overall	Rural	Urban
Ganganagar	0.71	0.68	0.80
Hanumangarh	0.82	0.75	1.00
Bikaner	0.88	0.93	0.95
Churu	0.91	0.85	1.30
Jhunjhunun	0.88	0.78	1.30
Alwar	0.97	0.90	0.90
Bharatpur	1.02	0.98	1.10
Dhaulpur	0.97	0.88	1.15
Karauli	1.17	1.08	1.45
Sawai Madhopur	1.24	1.18	1.25
Dausa	1.09	1.00	1.20
Jaipur	0.76	0.93	0.80
Sikar	0.94	0.85	1.25
Nagaur	1.12	1.03	1.40
Jodhpur	1.00	1.13	0.90
Jaisalmer	1.32	1.23	1.20
Barmer	1.26	1.10	1.25
Jalor	1.35	1.18	1.60
Sirohi	1.26	1.23	1.25
Pali	1.12	1.03	1.35
Ajmer	0.94	1.15	0.80
Tonk	1.21	1.18	1.10
Bundi	1.12	1.08	1.15
Bhilwara	1.09	1.08	0.95
Rajsamand	1.15	1.08	1.05
Dungarpur	1.09	0.98	0.80
Banswara	1.12	1.03	0.65
Chittaurgarh	1.15	1.13	0.90
Kota	0.71	0.85	0.85
Baran	1.03	0.98	1.15
Jhalawar	1.15	1.08	0.95
Udaipur	1.03	1.08	0.65
Pratapgarh	1.15	1.05	0.80

In overall state condition there are 11 districts which show lower value than the state's disparity value. Jodhpur has the same disparity value as the state has. Kota and Ganganagar have shown the lowest value with respect to state while Jalor has experienced the highest value with respect to state's value. In rural area there are 13 districts which show lower disparity value than the state's disparity value. The lowest ratio is found in Ganganagar followed by Hanumangarh, while the highest ratio is found for Jaisalmer and Sirohi. Dausa experiences the unity ratio. In case of urban area there are 14 districts which show lower disparity value than the state. The lowest ratio is found in Banswara and Udaipur, the highest ratio is found in Jalor. Hanumangarh experiences the unity disparity ratio. Hence it is clear from above result that in urban area there are less disparity compared to rural area.

Conclusion

The preceding analysis reflects very clearly that (i) The inter district variation in literacy is higher for female and rural area than their counterparts (male and urban area); (ii) There exists wide gender disparity in rural and urban area; (iii) The districts which show high gender disparity also show high location quotient of gender disparity. (iv) In many districts the gender equity index followed the disparity index; the districts which have low disparity index have high gender equity index. (v) Kota, Ganganagar, Jaipur, Bikaner, Alwar come out to be the better district while Nagaur, Bundi, Karauli, Tonk, Sawai Madhopur, Barmer, Sirohi, Jaisalmer, Jalor come out to be the laggards in context of gender disparity, regional inequality, and gender equity. (vi) Sirohi and Jalor come out to be backward in female literacy in rural and urban area respectively. (vii) Udaipur and Ajmer come out to be problematic area in rural- urban gender disparities as these have shown the largest gender disparity between rural and urban area. Hence it is clear from discussion that inter and intra regional inequalities exist in Rajasthan. Those districts which are backward in literacy are also problematic in gender disparity, female equity condition, rural urban gender disparity, as well as in regional inequality in the state. In order to reduce disparity among gender as well as regions serious steps need to be taken by the government and non- government organisations.

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