

# Gender Disparity in Literacy in India

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## Abstract

India has the dubious distinction of having one of the world's highest rates of adult illiteracy. According to the 2011 Census of India, the overall rate of literacy is 73 per cent. But breaking up the national average reveals that while the rate of literacy for men is 80.9 per cent, for women it is 64.6 per cent. This means that more than one-fourth of the country's population is still illiterate. And within that figure, nearly one-fifth of males are illiterate compared with more than one-third of females. That there is a slow rate of growth of female literacy compared with male literacy is a matter of grave concern. Despite the number of efforts made at national and international levels, there exist a significant number of illiterate women in society, a disturbing factor for all development efforts. Female literacy is important as it is a force multiplier for the social development of a country. Illiteracy retards the development of an individual, society and the country. Literacy plays a significant role in reducing gender inequality. The purpose of the article is to map and analyse gender disparity in literacy across the states and union territories (UTs) of India and indicate future projections of levels of female literacy.

## Keywords

Census, education, female literacy, male literacy, gender disparity

If education is given to a woman then it would lead to the education of a home, a society and the world at large. (Pt. Jawaharlal Nehru)

## Introduction

Human capital is the most important ingredient in the overall development of a society. Education is a key element as it has the potential to increase human

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capital; it removes inequality from society, impacts the growth of employment and improves a country's GNP. Literacy is the basic building block and a crucial element in the development of education in society. In the context of Indian society, which is essentially patriarchal, it is women and girls who suffer because of low accessibility to education. In other words, gender becomes an important factor in determining the education level of an individual (India Human Development Report, 2011). Women constitute approximately half, that is, 48.46 per cent of the total population of India (IAEA Newsletter, 2014). However, a large gap exists between the male and female population if you examine their levels of literacy. There is a large male–female gap of literacy in India. According to the 2011 Census of India, it is about 16 per cent between the two reference groups. The problem of illiteracy, especially among women, is a huge area of concern not only in India but also across the world as it directly impacts development efforts.

This article attempts to analyse levels of literacy across the various states of India and union territories (UTs). It has been divided into three major sections. The first section analyses literacy trends in India with special reference to the period 1901–2011. The second section examines patterns of literacy in India. The last section provides details of gender disparity with respect to males and females across the country. Additionally, this section tries to identify the major causes behind gender disparity in literacy rates, explaining the reasons for its presence despite several interventions made by the state and central governments and various international organisations. Finally, the study looks at future projections of gender disparity in literacy levels and the possible impact on the overall development of women in this country.

## Overview of Literature

In India, women face much discrimination at every level in society; they are not treated at par with men, socially, economically or politically, and as a result they fall far behind men in almost all spheres of life. This simple fact is evident from the reports of several committees constituted at various levels for the development of women. The National Committee on Women's Education (1957–1959), chaired by Smt. Durgabai Deshmukh, made a strong recommendation for the education of women. Stating that it should be a top priority, the report suggested that bold and determined efforts should be made to narrow down the existing gap between the education of men and women in as short a time as possible. The National Policy on Education, 1968 stressed that the education of girls should receive priority, not only on grounds of social justice but also because this would be a way to accelerate social transformation.

It was the National Policy on Education, 1986 that stressed that this new policy would lay a special emphasis on the removal of disparities and equalise educational opportunities by attending to the specific needs of those who had been denied equality so far. It further stressed the removal of women's illiteracy and obstacles inhibiting their access to education. The policy framework also emphasised that elementary education would receive an overriding priority through the

provision of special support services, the setting of time targets and an effective monitoring of goals. A major emphasis was also to be placed on women's participation in vocational, technical and professional education at different levels. Most significantly, a policy of non-discrimination would be pursued vigorously to eliminate sex stereotyping in vocational and professional courses and to promote women's participation in non-traditional occupations, as well as in existing and emergent technologies. All these goals were outlined under the Programme of Action, National Policy on Education, 1986, which was later modified in 1992 (Government of India, 1986).

Promoting gender equality and empowering women was one of the eight UN Millennium Development Goals which have recently been expanded into the Sustainable Development Goals. It included the equal participation of girls at the primary and secondary levels and literacy parity between young women and men. To achieve this goal, the Government of India launched the Saakshar Bharat Mission, a new scheme of the National Literacy Mission on International Literacy Day, 8 September 2009. This scheme covered 365 districts in 26 states and UTs, all of which had adult female literacy rates below 50 per cent according to the 2001 Census of India. The primary focus of the mission was on women and its target was to cover a total of 70 million adults for 15 years and above age. The Mission aimed to reduce gender and other disparities by providing basic education in the country (Government of India, 1999).

Addressing the nation on the eve of International Literacy Day on 8 September 2013, the president of India emphasised that

Literacy is a crucial parametre of socio-economic development. It positively runs deep. The time has come to put in renewed vigour and concerted efforts to improve our literacy rate. It has been envisaged that by the end of the Twelfth Five-Year Plan period, we would achieve a literacy rate of eighty per cent and also narrow the gender gap from sixteen to ten percentage points. Our ultimate objective should be to bring the literacy rate not only at par with the world average but at levels attained by leading nations. The existing gender disparity in literacy levels has to be bridged by turning our attention on the girl child and women. Our attempts at achieving widespread literacy should be complemented by efforts at alleviating poverty, mitigating inequity owing to gender and social category and improving access to schooling. We have to gear up the machinery at all levels—national, state, district, block and *gram panchayat*. The implementation structure has to be strengthened by involving government agencies as well as reputed organisations in the non-government and private sectors. With the active participation and commitment of all stakeholders particularly literacy functionaries, I am confident that we will achieve these targets.

Widespread illiteracy, along with mass unemployment, low income and scarcity of resources, was prevalent among Scheduled Castes (Sinha, 1981). The following factors are responsible for poor female literacy rates: gender-based inequality, social discrimination and economic exploitation, the occupation of the girl child in domestic chores, the low enrolment of girls in schools, their low retention rate and high dropout rate (Government of India, 1998). However, caste disparity is greater than sex disparity in literacy as there is more distinction between non-scheduled and scheduled castes than between male and female components (Raju, 1988).

The problem of women's illiteracy is directly connected to the problem of poverty and hence there is a serious need to pay attention to economic barriers (Dighe, 1991). To increase literacy rates and eliminate drop outs, children from all social groups should be given free food and shelter as well as compulsory education (Thangaraj, 1995). Literacy is a tool to empower women in the wider struggle against inequality and injustice in society (Patel & Dighe, 1997). There is a need to implement literacy programmes as an integral part of an integrated rural development programme with a provision for vocational skill development and income generation programmes because literacy has a link with both societal needs and national development (Das & Singh, 2002). Administrators and planners must pay greater attention to bridging the gap between the literacy of males and females in both rural and urban areas (Grover & Bhardwaj, 2002). The education of Scheduled Castes has been characterised by low literacy rates, high dropout rates as well as by the persistence of highly discriminatory malpractices (Thorat, 2009). Tribal communities do not recognise the value of educating girls and the problems of access, quality, content and the devaluing of non-formal education reduce enrolment (Swamy, 2013).

## Data Sources

The present study is primarily based on secondary data extracted from the Census of India 2011. Besides, some other reports and government publications have been used to supplement our analysis.

## Methodology

In the present study, three major statistical tools were used for showing the regional pattern of literacy rate and examining the gender gap between males and females. First, a simple literacy rate was computed for trend analysis and spatial analysis of the study. Second, Sopher's method was applied for analysing a regional pattern of gender disparity across India. Finally, Geographic Information System (GIS) mapping was followed using choroplething for showing regional disparity in India.

## Gender Disparity

Different methods can be used to measure disparities. Here, Sopher's method for disparity index was used. David V. Sopher developed this method to calculate disparities. According to this method, if  $X_1$  and  $X_2$  represent the respective percentage value of variables of groups 1 and 2, then the disparity index ( $D$ ) can be calculated by the following formula:

$$D = \text{Log}(X_2/X_1) + \text{Log} [(Q - X_1)/(Q - X_2)] \quad (1)$$

where  $X_2 > \text{or} = X_1$  and  $Q = 100$

In this method, group 2 is taken for the variable having a comparatively higher value and group 1 is taken for the variable with a relatively lower value. In case there is no disparity (perfect equality), the value of  $D$  will be 0. This method reveals that the higher the value of  $D$ , the higher the extent of disparity and the lower the value of  $D$ , the lower the extent of disparity.

By using this formula,  $D$  for different years for India has been calculated.

$D$  for the year 1901 =  $\text{Log}(X2/X1) + \text{Log}[(Q - X1)/(Q - X2)]$

Rank correlation between different variables has been measured by using Spearman's rank correlation method (since there are ties in ranks):

$$r_R = \frac{\frac{n^2 - 1}{12} - \frac{T_u + T_v}{2} - \frac{1}{2n} \sum_i d_i^2}{\left(\frac{n^2 - 1}{12} - T_u\right)^{1/2} \left(\frac{n^2 - 1}{12} - T_v\right)^{1/2}} \quad (2)$$

where

$$T_u = \sum_{j=1}^s (k_j^3 - k_j)/12n$$

$$T_v = \sum_{j=1}^t (k_j'^3 - k_j')/12n$$

(If there are  $s$  ties of length  $k_1, k_2, \dots, k_s$  and in the ranking with respect to the second character, there are  $t$  ties of length  $k_1', k_2', \dots, k_t'$ .)

$r_R$  is the rank correlation coefficient,  $n$  is the number of pairs and  $d$  is the difference of ranks between two variables (Goon, Gupta & Dasgupta, 1983, p. 395).

## Future Projections

In order to calculate the time period to achieve 100 per cent literacy, we have applied the time series analysis.

$$P_n = P_0 (1 + R/100)^n \quad (3)$$

where  $P_n = 100$  (literacy to be achieved),  $P_0 =$  present literacy,  $r =$  rate (difference in literacy rates between periods).

## Results and Analysis

Table 1 reveals that the literacy rate for people, both males and females, has been increasing continuously. The literacy rate has increased 13.54 times during 1901–2011 and 4 times during 1951–2011. The literacy rate of males has increased 8.22 times during 1901–2011 and 3 times during 1951–2011. The literacy rate of females has increased 108 times during 1901–2011 and 7.3 times during 1951–2011. These figures also reveal that gender disparity in literacy has increased

**Table 1.** Literacy Rates in India, 1901–2011

Serial No.	Year	Age Group	Total Literacy Rates	Male Literacy Rates	Female Literacy Rates	Gender Disparity (male/female difference in literacy rates: percentage points)	Net Change in the Gender Disparity
1	1901	All population	5.39	9.83	0.60	9.23	—
2	1911	All population	5.92	10.56	1.05	9.51	+0.28
3	1921	All population	7.16	12.21	1.81	10.40	+0.89
4	1931	All population	9.50	15.59	2.93	12.66	+2.26
5	1941	All population	16.10	24.90	7.30	17.60	+4.94
6	1951	5 and above	18.33	27.16	8.86	18.30	+0.7
7	1961	5 and above	28.30	40.40	15.34	25.06	+6.76
8	1971	5 and above	34.45	45.95	21.97	23.98	-1.08
9	1981	7 and above	43.67	56.50	29.85	26.65	+2.67
10	1991	7 and above	52.21	64.13	39.29	24.84	-1.81
11	2001	7 and above	64.84	75.26	53.67	21.59	-3.25
12	2011	7 and above	73.00	80.90	64.60	16.30	-5.29

**Source:** Shah (1999); Encyclopedia of Indian Adult Education, 1999 and Census of India website, [www.censusindia.gov.in](http://www.censusindia.gov.in)

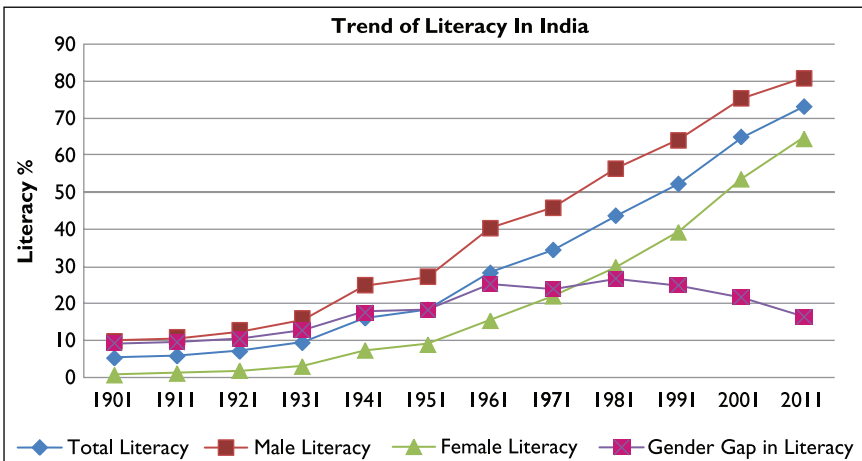
The author's calculation is based on data from Census of India 1901–2011.

**Note:** (1) The 1981 literacy rates exclude Assam. (2) The 1991 Census literacy rates exclude Jammu and Kashmir.

continuously from 1901 to 1961 and it became 2.72 times during 1901–1961. During the last 110 years, it decreased by 1.08 percentage points for the first time in 1971. Then it again increased by 2.67 percentage points and became 26.65 in 1981. Thereafter, it had been decreasing continuously until 2011. If we compare gender disparity across different years, we find that gender disparity was the lowest (9.23 per cent) in 1901, while it was the highest (26.65 per cent) in 1981. Overall gender disparity in literacy has increased 1.77 times during 1901–2011 from 9.23 per cent to 16.30 per cent. The rate of gender disparity was the highest at 6.76 per cent during 1951–1961 and the lowest, 0.28, during 1901–1911. The maximum decrease, 5.29 per cent, in gender disparity was recorded during 2001–2011.

Figure 1 shows that total literacy is continuously increasing during the reference period (1901–2011). It has increased faster after from 1961 to 2011. Literacy among males and females have the same rate of pace in the same period. Gender gap in literacy between males and females was increasing between 1901 and 1981 with few exceptions. Afterwards, this gap started declining at relatively faster rate and reached below 20 per cent. Thus, the figure reveals that literacy is increasing and literacy gap between male and female is declining during the reference period.

Table 2 reveals that more than one-fourth of the population is still illiterate in the country. The gender disparity in literacy is 16.3 per cent. In rural areas, it is 19.3 per cent, while in urban areas it is 9.7 per cent. There is a difference of 9.6 per cent in gender disparity in literacy between rural and urban areas.



**Figure 1.** Literacy Rates and Gender Disparity in India

**Source:** Based on data from Census of India 1901–2011.

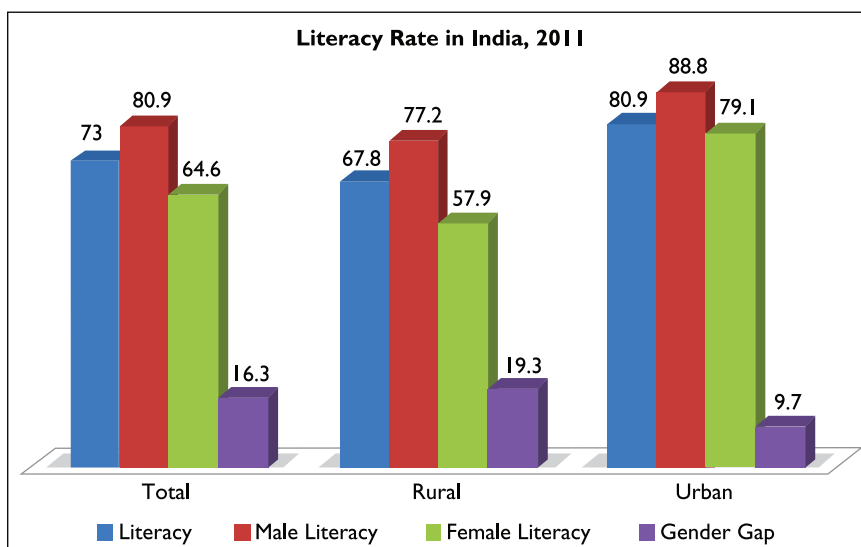
**Table 2.** Literacy Rates in India, 2011

Serial No.	Geographical Location	Total Literacy	Male Literacy	Female Literacy	Gender Gap
1	Total	73.00	80.90	64.60	16.3
2	Rural	67.8	77.2	57.9	19.3
3	Urban	80.90	88.8	79.1	9.7

**Source:** Author's calculation based on data from the 2011 Census of India.

Figure 2 shows that the total literacy rate at the national level is 73 per cent. While male literacy is at 80.9 per cent, female literacy is only 64.6 per cent. Thus, there is a 16.3 per cent gender gap in the literacy rates of males and females. Looking closely, in rural areas, the literacy rate is lower than the national average as well as urban literacy rate (80.9 per cent). From Figure 2, three major facts are evident: (i) female rural literacy rate is the lowest when compared with urban female rate, the national average and the literacy rate of males; (ii) the gender gap in the literacy rate is highest in rural areas and (iii) finally, the most important fact is that literacy among females is unfavourable in all the cases.

Table 3 reveals that literacy rates are highest in Kerala (94 per cent) followed by Lakshadweep (91.8 per cent) and Mizoram (91.3 per cent). Literacy rates are lowest in Bihar (61.8 per cent) followed by Arunachal Pradesh (65.4 per cent) and Rajasthan (66.1 per cent). Literacy rates among females are highest in Kerala (92.1 per cent), Mizoram (89.3 per cent) and Lakshadweep (87.9 per cent). Literacy rates are lowest in Bihar (51.5 per cent), Rajasthan (52.1 per cent) and Jharkhand (55.4 per cent). Gender disparity in literacy is lowest in Meghalaya (3.1 per cent) followed by Mizoram and Kerala (4 per cent) and Nagaland (6.4 per cent). Gender disparity in literacy is highest in Rajasthan (27.1 per cent), Jharkhand (21.4 per cent) and Dadra and Nagar Haveli (20.9 per cent).



**Figure 2.** Literacy Rates and the Gender Gap

**Source:** Based on data from the 2011 Census of India.

**Table 3.** Literacy Rates in India, 2011

State/UT	Literacy Person	Male Literacy	Female Literacy	Gender Disparity	Rural Male Literacy	Rural Female Literacy	Urban Male Literacy	Urban Female Literacy
J&K	67.2	76.8	56.4	20.4	73.8	51.6	83.9	69.0
HP	82.8	89.5	75.9	13.6	89.1	74.6	93.4	88.4
Punjab	75.8	80.4	70.7	9.7	76.6	65.7	86.7	79.2
Chandigarh	86	90	81.2	8.8	85.8	73.2	90.1	81.4
Uttarakhand	78.8	87.4	70	17.4	86.6	66.2	89.1	79.3
Haryana	75.6	84.1	65.9	18.2	81.6	60.0	88.6	76.9
Delhi	86.2	90.9	80.8	10.1	89.4	73.1	91.0	80.9
Rajasthan	66.1	79.2	52.1	27.1	76.2	45.8	87.9	70.7
UP	67.7	77.3	57.2	20.1	76.3	53.7	80.4	69.2
Bihar	61.8	71.2	51.5	19.7	69.7	49.0	82.6	70.5
Sikkim	81.4	86.6	75.6	11.0	84.6	72.4	92.4	84.7
Arunachal Pradesh	65.4	72.6	57.7	14.9	67.4	52.0	88.4	76.7
Nagaland	79.6	82.8	76.1	6.7	79.0	71.5	91.6	87.4
Manipur	79.2	86.1	72.4	13.7	83.4	68.9	91.7	79.3
Mizoram	91.3	93.3	89.3	4.0	88.2	79.8	98.0	97.3
Tripura	87.2	91.5	82.7	8.8	90.1	79.5	95.5	91.4
Meghalaya	74.4	76	72.9	3.1	71.5	68.4	92.5	89.1
Assam	72.2	77.8	66.3	11.5	75.4	63.0	91.8	84.9
West Bengal	76.3	81.7	70.5	11.2	78.4	65.5	88.4	81.0
Jharkhand	66.4	76.8	55.4	21.4	72.9	48.9	88.4	75.5
Odisha	72.9	81.6	64	17.6	79.6	60.7	90.7	80.4
Chhattisgarh	70.3	80.3	60.2	20.1	77.0	55.1	90.6	77.2

(Table 3 continued)



(Table 3 continued)

State/UT	Literacy Person	Male Literacy	Female Literacy	Gender Disparity	Rural Literacy Male	Rural Literacy Female	Urban Literacy Male	Urban Literacy Female
MP	69.3	78.7	59.2	19.5	74.7	52.4	88.7	76.5
Gujarat	78	85.8	69.7	16.1	81.6	61.4	91.0	81.0
Daman and Diu	87.1	91.5	79.5	12.0	89.4	71.9	92.1	82.9
Dadra and Nagar Haveli	76.2	85.2	64.3	20.9	76.4	49.6	94.0	83.4
Maharashtra	82.3	88.4	75.9	12.5	85.1	68.5	92.1	84.9
AP	67	74.9	59.1	15.8	69.4	51.5	85.8	74.4
Karnataka	75.4	82.5	68.1	14.4	77.6	59.7	90.0	81.4
Goa	88.7	92.6	84.7	7.9	91.7	81.6	93.2	86.6
Lakshadweep	91.8	95.6	87.9	7.7	94.5	88.5	95.8	87.8
Kerala	94	96.1	92.1	4.0	95.4	90.8	97.0	93.4
Tamil Nadu	80.1	86.8	73.4	13.4	82.0	65.0	91.8	82.3
Puducherry	85.8	91.3	73.4	17.9	87.4	73.0	93.0	84.2
Andaman and Nicobar Islands	86.6	90.3	82.4	7.9	88.5	79.9	93.1	86.6
India	73	80.9	64.6	16.3	77.2	57.9	88.8	79.1

Source: Author's calculation based on data from the 2011 Census and IAEA Newsletter (2013).

Figure 3 shows that the state of Bihar stands at the bottom of all the states and UTs in India, while on the other hand, Kerala shows the highest literacy rate in the country. From the figure, it is clear that, generally, literacy rates across the states and UTs fall between 60 and 80 per cent. It is also evident that, female literacy rate is lower than the male literacy rate, indicating that females are always lagging behind their male counterparts in their access to education.

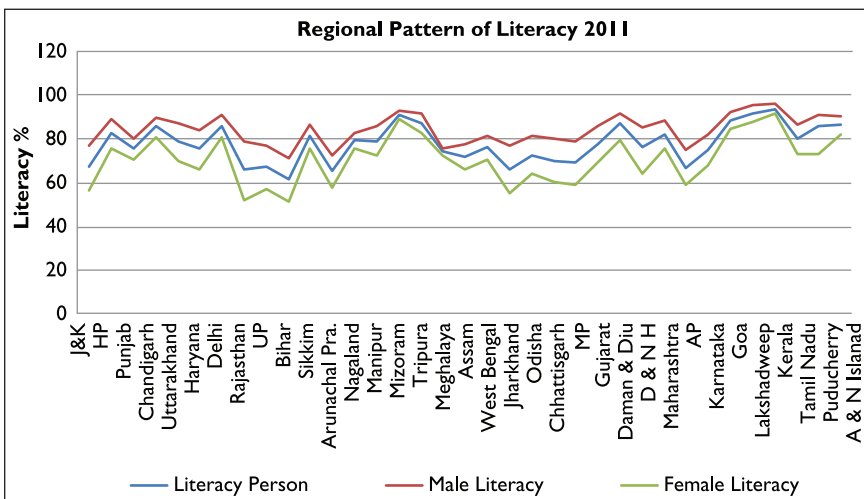
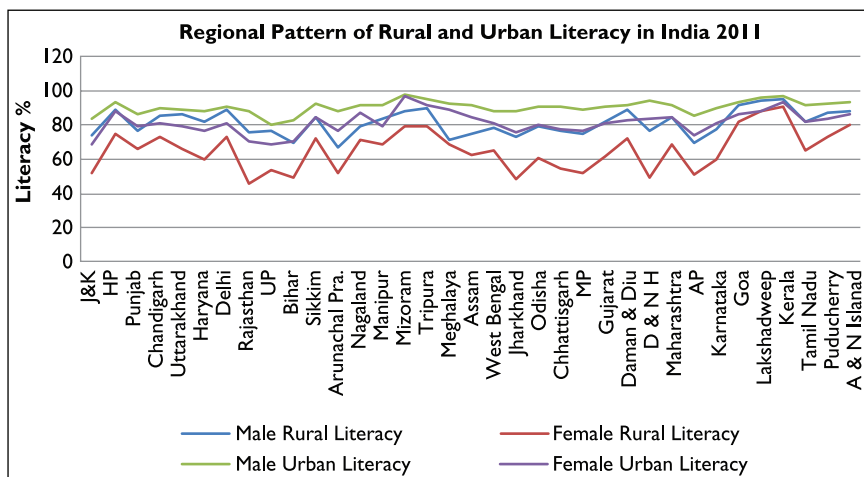


Figure 3. Regional Patterns of Literacy

Source: Based on data from the 2011 Census of India.



**Figure 4.** Trends in Urban–Rural Disparity in Literacy

**Source:** Based on data from the 2011 Census of India.

## Urban–Rural Disparity

From Figure 4, we see that female literacy rate is lower, while males are in an advantageous position in achieving literacy. In fact, the urban male literacy rate and the rural male literacy rate is almost the same, varying between 78 and 85 per cent, while the female literacy rate shows much more variation among the states/UTs, 43–85 per cent.

## Gender Disparity

As stated earlier, the national average of gender disparity is 16.3 per cent. Twelve states show a gender disparity above the national average. In rural areas, there are eighteen states and in urban areas there is only one state above the national average. Twenty-three states have gender disparity below the national average. It is so in rural areas in 17 states and in urban areas in 34 states.

The data on disparity presented in Table 4 reveal that gender disparity in literacy levels had been continuously decreasing from 1901 to 1971. However, in 1981, it marginally increased and thereafter again it has been decreasing. The rank correlation measurement of Table 5 reveals that in urban areas there exists a high positive correlation between the total literacy rate and the male literacy rate, the total literacy rate and the female literacy rate and the male literacy rate and the female literacy rate. It means that if literacy increases, male and female literacy will also increase. If the male literacy rate increases, the female literacy will also increase. But there is a negative correlation between gender disparity and the total literacy rate, the male literacy rate and the female literacy rate. It means that if the literacy rate increases, the gender disparity decreases.

**Table 4.** Disparity Index of Different Years

Serial No.	Year	Disparity Index
1	1901	1.2366
2	1911	1.0248
3	1921	0.8517
4	1931	0.7495
5	1941	0.5591
6	1951	0.5134
7	1961	0.4529
8	1971	0.3555
9	1981	0.3195
10	1991	0.2625
11	2001	0.2142
12	2011	0.1788

**Source:** Author's calculation based on data from the 2011 Census of India.

Figure 5 is showing the pattern of male–female disparity in literacy in India in 2011. It shows that Rajasthan and Jharkhand have highest male–female disparity in literacy, that is literacy among females is unfavourable in these states. Uttar Pradesh, Uttarakhand, Haryana, Madhya Pradesh, Bihar, Chhattisgarh, Andhra Pradesh and Jammu and Kashmir fall under the second highest level of disparity in male–female literacy. Thus, these states are relatively better than Jharkhand and Rajasthan. Maharashtra, Gujarat, Karnataka, Tamilnadu, West Bengal, Punjab, Himachal Pradesh and some of the north-east states fall under the moderate rate of male–female disparity in literacy. Male–female disparities in literacy are lowest in Kerala, Goa, Meghalaya, Tripura, Nagaland and Manipur. Thus, in these states female literacy is higher than the rest of all the states. Consequently, it is revealed that literacy among most of the states is not favourable to females except in Kerala, Goa and some north-east states.

The rank correlation measurement of Table 6 also reveals that in rural areas there exists a high positive correlation between the total literacy rate and the male literacy rate, the total literacy rate and the female literacy rate and the male literacy rate and the female literacy rate. It means that if literacy increases, male and female literacy will increase. If male literacy increases, the female literacy will also increase. But there is a negative correlation between gender disparity and total literacy rate, male literacy rate and female literacy rate. It means that if literacy increases, gender disparity decreases. It reveals that any increase in literacy will reduce gender disparity.

The rank correlation measurement of Table 7 reveals that in urban areas there exists a high positive correlation between the total literacy rate and the male literacy rate, the total literacy rate and the female literacy rate and the male literacy rate and the female literacy rate. It means that if literacy increases, male and female literacy will increase. If male literacy increases, the female literacy will also increase. But there is a negative correlation between gender disparity and total literacy rate, male literacy rate and female literacy rate. It means that

**Table 5. Gender Disparity: All Areas (2011 Census of India)**

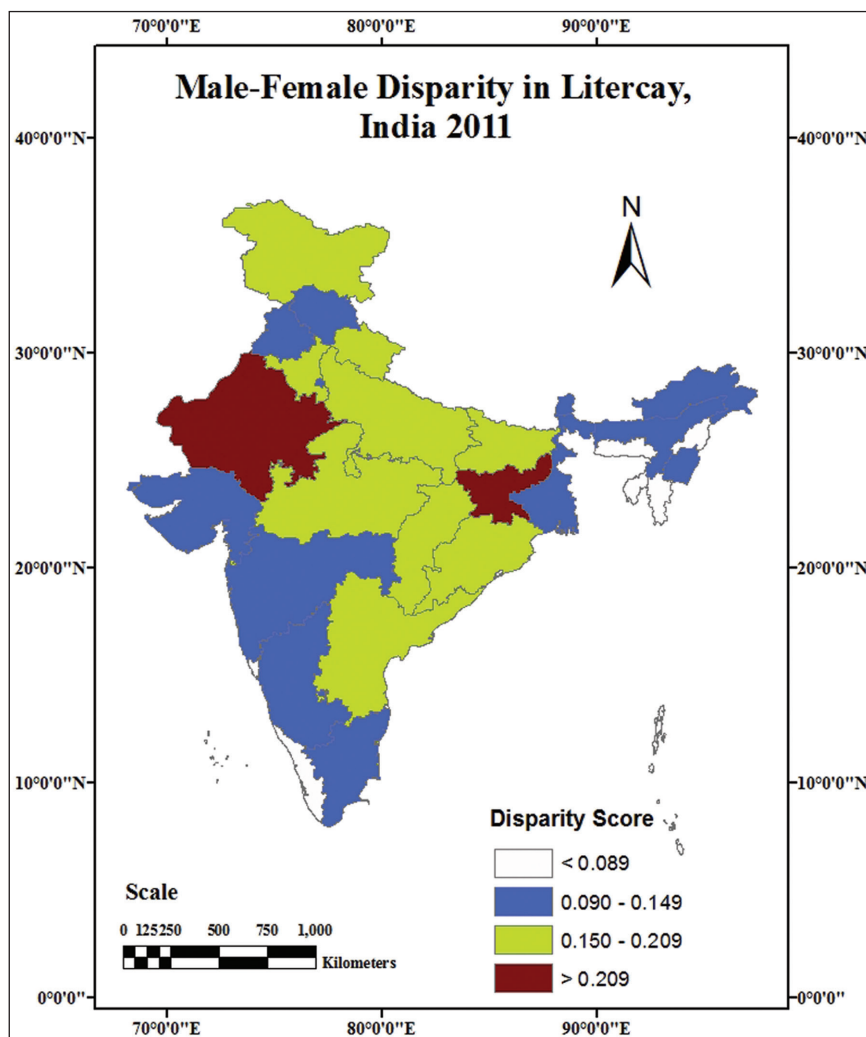
Serial No.	States/Union Territories	Total Literacy		Male Literacy		Female Literacy Rates		Gender Disparity	
		Rates	Rank	Rates	Rank	Literacy Rates	Rank	Disparity	Rank
1	Jammu and Kashmir	67.2	30	76.8	30.5	56.4	32	20.4	4
2	Himachal Pradesh	82.8	11	89.5	11	75.9	11.5	13.6	18
3	Punjab	75.8	21	80.4	24	70.7	18	9.7	26
4	Chandigarh	86.0	9	90.0	10	81.2	7	8.8	27.5
5	Uttarakhand	78.8	17	87.4	13	70.0	18	17.4	12
6	Haryana	75.6	22	84.1	19	65.9	24	18.2	9
7	NCT of Delhi	86.2	8	90.9	8	80.8	8	10.1	25
8	Rajasthan	66.1	33	79.2	26	52.1	34	27.1	1
9	Uttar Pradesh	67.7	29	77.3	29	57.2	31	20.1	5.5
10	Bihar	61.8	35	71.2	35	51.5	35	19.7	7
11	Sikkim	81.4	13	86.6	15	75.6	13	11.0	24
12	Arunachal Pradesh	65.4	34	72.6	34	57.7	30	14.9	15
13	Nagaland	79.6	15	82.8	20	76.1	10	6.7	32
14	Manipur	79.2	16	86.1	16	72.4	17	13.7	17
15	Mizoram	91.3	3	93.3	3	89.3	2	4.0	33.5
16	Tripura	87.2	5	91.5	5.5	82.7	5	8.8	27.5
17	Meghalaya	74.4	24	76.0	32	72.9	16	3.1	35
18	Assam	72.2	26	77.8	28	66.3	23	11.5	22
19	West Bengal	76.3	19	81.7	22	70.5	19	11.2	23
20	Jharkhand	66.4	32	76.8	30.5	55.4	33	21.4	2
21	Odisha	72.9	25	81.6	23	64.0	26	17.6	11
22	Chhattisgarh	70.3	27	80.3	25	60.2	27	20.1	5.5
23	Madhya Pradesh	69.3	28	78.7	27	59.2	28	19.5	8
24	Gujarat	78.0	18	85.8	17	69.7	21	16.1	13
25	Daman and Diu	87.1	6	91.5	5.5	79.5	11.5	12.0	21

(Table 5 continued)

(Table 5 continued)

Serial No.	States/Union Territories	Total Literacy Rates	Rank	Male Literacy Rates	Rank	Female Literacy Rates	Rank	Gender Disparity	Rank
26	Dadra and Nagar Haveli	76.2	20	85.2	18	64.3	29	20.9	3
27	Maharashtra	82.3	12	88.4	12	75.9	22	12.5	20
28	Andhra Pradesh	67.0	31	74.9	33	59.1	29	15.8	14
29	Karnataka	75.4	23	82.5	21	68.1	22	14.4	16
30	Goa	88.7	4	92.6	4	84.7	4	7.9	29.5
31	Lakshadweep	91.8	2	95.6	2	87.9	3	7.7	31
32	Kerala	94.0	1	96.1	1	92.1	1	4.0	33.5
33	Tamil Nadu	80.1	14	86.8	14	73.4	14.5	13.4	19
34	Puducherry	85.8	10	91.3	7	73.4	14.5	17.9	10
35	Andaman and Nicobar Islands	86.6	7	90.3	9	82.4	6	7.9	29.5
	India	73	—	80.9	—	64.6	—	16.3	—

**Source:** Author's calculation based on data from the 2011 Census of India.



**Figure 5.** Gender Disparity in India, 2011

**Source:** Based on data from the 2011 Census of India.

if literacy increases, gender disparity decreases. It reveals that any increase in literacy will reduce gender disparity.

Table 8 reveals that the strongest correlation (0.98) exists between the total literacy rate and the female literacy rate in urban areas followed by the second strongest correlation (0.97) between the total literacy rate and male literacy rate, the total literacy rate and female literacy rate in all areas and total literacy rate and female literacy rate in rural areas. There is the same correlation (0.97) level between the total literacy rate and the male literacy rate in all areas, total literacy rate and female literacy rate in all areas and total literacy rate and female literacy rate in rural areas. There is the same correlation (0.96) between the

**Table 6.** Gender Disparity–Rural Areas (Census of India, 2011)

Serial No.	State/UTs	Total Literacy Rates		Male Literacy Rates		Female Literacy Rates		Gender Disparity	
		Rates	Rank	Rates	Rank	Literacy Rates	Rank	Disparity	Rank
1	Jammu and Kashmir	63.2	30	73.8	30	51.6	30	22.2	6
2	Himachal Pradesh	81.9	7.5	89.1	7	74.6	7	14.5	20.5
3	Punjab	71.4	20.5	76.6	24	65.7	18	10.9	27
4	Chandigarh	80.7	10	85.8	12	73.2	8	12.6	24
5	Uttarakhand	76.3	14	86.6	11	66.2	17	20.4	10
6	Haryana	71.4	20.5	81.6	17.5	60.0	24	21.6	8
7	NCT of Delhi	81.9	7.5	89.4	5.5	73.1	9	16.3	18
8	Rajasthan	61.4	31	76.2	27	45.8	35	30.4	1
9	Uttar Pradesh	65.5	27	76.3	26	53.7	27	22.6	4
10	Bihar	59.8	35	69.7	33	49.0	33	20.7	9
11	Sikkim	78.9	12	84.6	14	72.4	11	12.2	26
12	Arunachal Pradesh	59.9	34	67.4	35	52.0	29	15.4	19
13	Nagaland	75.3	16	79.0	20	71.5	13	7.5	32
14	Manipur	76.2	15	83.4	15	68.9	14	14.5	20.5
15	Mizoram	84.1	6	88.2	9	79.8	5	8.4	31
16	Tripura	84.9	4	90.1	4	79.5	6	10.6	28
17	Meghalaya	69.9	23	71.5	32	68.4	16	3.1	35
18	Assam	69.3	24	75.4	28	63.0	21	12.4	25
19	West Bengal	72.1	18	78.4	21	65.5	19	12.9	23
20	Jharkhand	61.1	32	72.9	31	48.9	34	24.0	3
21	Odisha	70.2	22	79.6	19	60.7	23	18.9	12
22	Chhattisgarh	66.0	26	77.0	23	55.1	26	21.9	7
23	Madhya Pradesh	63.9	29	74.7	29	52.4	28	22.3	5
24	Gujarat	71.7	19	81.6	17.5	61.4	22	20.2	11
25	Daman and Diu	81.4	9	89.4	5.5	71.9	12	17.5	15

(Table 6 continued)

(Table 6 continued)

Serial No.	State/UTs	Total Literacy Rates	Rank	Male Literacy Rates	Rank	Female Literacy Rates	Rank	Gender Disparity	Rank
26	Dadra and Nagar Haveli	64.1	28	76.4	25	49.6	32	26.8	2
27	Maharashtra	77.0	13	85.1	13	68.5	15	16.6	17
28	Andhra Pradesh	60.4	33	69.4	34	51.5	31	17.9	13.5
29	Karnataka	68.7	25	77.6	22	59.7	25	17.9	13.5
30	Goa	86.6	3	91.7	3	81.6	3	10.1	29
31	Lakshadweep	91.6	2	94.5	2	88.5	2	6.0	33
32	Kerala	93.0	1	95.4	1	90.8	1	4.6	34
33	Tamil Nadu	73.5	17	82.0	16	65.0	20	17.0	16
34	Puducherry	80.1	11	87.4	10	73.0	10	14.4	22
35	Andaman and Nicobar Islands	84.5	5	88.5	8	79.9	4	8.6	30
	India	67.8	—	77.2	—	57.9	—	19.3	—

**Source:** Author's calculation based on data from the 2011 Census of India.



**Table 7. Gender Disparity—Urban Areas (Census of India, 2011)**

Serial No.	States/Union Territories	Total Literacy Rates		Male Literacy Rates		Female Literacy Rates		Gender Disparity	
		Rates	Rank	Rates	Rank	Rates	Rank	Disparity	Rank
1	Jammu and Kashmir	77.1	33	83.9	33	69.0	35	14.9	2
2	Himachal Pradesh	91.1	5	93.4	6	88.4	5	5.0	30
3	Punjab	83.2	26	86.7	31	79.2	25	7.5	24
4	Chandigarh	86.2	19	90.1	22	81.4	17.5	8.7	20
5	Uttarakhand	84.5	24	89.1	24	79.3	23.5	9.8	16
6	Haryana	83.1	27	88.6	26	76.9	27	11.7	8.5
7	NCT of Delhi	86.3	17.5	91.0	18.5	80.9	21	10.1	14
8	Rajasthan	79.7	32	87.9	30	70.7	32	17.2	1
9	Uttar Pradesh	75.1	35	80.4	35	69.2	34	11.2	11
10	Bihar	76.9	34	82.6	34	70.5	33	12.1	7
11	Sikkim	88.7	12.5	92.4	11	84.7	12	7.7	23
12	Arunachal Pradesh	82.9	28	88.4	28	76.7	28	11.7	8.5
13	Nagaland	89.6	10	91.6	17	87.4	7	4.2	31
14	Manipur	85.4	22	91.7	16	79.3	23.5	12.4	5
15	Mizoram	97.6	1	98.0	1	97.3	1	0.7	35
16	Tripura	93.5	3	95.5	4	91.4	3	4.1	32
17	Meghalaya	90.8	6	92.5	10	89.1	4	3.4	34
18	Assam	88.5	14.5	91.8	14.5	84.9	10.5	6.9	27
19	West Bengal	84.8	23	88.4	28	81.0	19.5	7.4	25
20	Jharkhand	82.3	30	88.4	28	75.5	30	12.9	4
21	Odisha	85.7	21	90.7	20	80.4	22	10.3	13
22	Chhattisgarh	84.0	25	90.6	21	77.2	26	13.4	3
23	Madhya Pradesh	82.8	29	88.7	25	76.5	29	12.2	6
24	Gujarat	86.3	17.5	91.0	18.5	81.0	19.5	10.0	15
25	Daman and Diu	89.0	11	92.1	12.5	82.9	15	9.2	18

(Table 7 continued)

(Table 7 continued)

Serial No.	States/Union Territories	Total Literacy		Male Literacy		Female Literacy Rates		Gender Disparity	
		Rates	Rank	Rates	Rank	Literacy Rates	Rank	Disparity	Rank
26	Dadra and Nagar Haveli	89.8	9	94.0	5	83.4	14	10.6	12
27	Maharashtra	88.7	12.5	92.1	12.5	84.9	10.5	7.2	26
28	Andhra Pradesh	80.1	31	85.8	32	74.4	31	11.4	10
29	Karnataka	85.8	20	90.0	23	81.4	17.5	8.6	21
30	Goa	90.0	8	93.2	7	86.6	8.5	6.6	28
31	Lakshadweep	91.9	4	95.8	3	87.8	6	8.0	22
32	Kerala	95.1	2	97.0	2	93.4	2	3.6	33
33	Tamil Nadu	87.0	16	91.8	14.5	82.3	16	9.5	17
34	Puducherry	88.5	14.5	93.0	9	84.2	13	8.8	19
35	Andaman and Nicobar Islands	90.1	7	93.1	8	86.6	8.5	6.5	29
	India	80.9	—	88.8	—	79.1	—	9.7	—

**Source:** Author's calculation based on data from the 2011 Census of India.

**Table 8.** Matrix of Rank Correlation between Different Variables

Serial No.	Variables	Rank Correlation		
		All Areas	Rural Areas	Urban Areas
1	Total literacy rate and male literacy rate	0.97	0.96	0.96
2	Total literacy rate and female literacy rate	0.97	0.97	0.98
3	Male literacy rate and female literacy rate	0.89	0.88	0.92
4	Total literacy rate and gender disparity	-0.64	-0.69	-0.83
5	Male literacy rate and gender disparity	-0.55	-0.50	-0.68
6	Female literacy rate and gender disparity	-0.86	-0.82	-0.90

**Source:** Author's calculation based on data from the 2011 Census of India.

total literacy rate and the male literacy rate in rural and urban areas. There is a strong positive correlation between the total literacy rate and the male literacy rate, the total literacy rate and the female literacy rate, the male literacy rate and female literacy rate in all areas, rural areas and urban areas. There is a negative correlation between the total literacy rate and gender disparity, the male literacy rate and gender disparity and the female literacy rate and gender disparity. A highly negative correlation (-0.90) exists between the female literacy rate and gender disparity in urban areas followed by -0.86 in the same category. The lowest negative correlation (-0.50) exists in the male literacy rate and gender disparity in rural areas followed by second lowest negative correlation of -0.55 in the same category. The correlation between the total literacy rate and the male literacy rate is highest at 0.97 for all areas and lowest at 0.96 for rural and urban areas. The correlation between the total literacy rate and the female literacy rate is highest at 0.98 for urban areas and lowest at 0.97 for all areas and rural areas. The correlation between the male literacy rate and the female literacy rate is highest at 0.92 for urban areas and lowest at 0.88 for rural areas. The correlation between the total literacy rate and gender disparity is highest at -0.83 for urban areas and lowest at -0.64 for all areas. The correlation between the male literacy rate and gender disparity is highest at -0.68 for urban areas and lowest at -0.50 for rural areas. The correlation between the female literacy rate and gender disparity is highest at -0.90 for urban areas and lowest at -0.82 for rural areas.

Table 9 reveals that gender disparity in literacy at the national level is 16.3 per cent in all the areas. Breaking up the figure, it is 19.3 per cent in rural areas and in urban areas it is 9.7 per cent. Thus, evidently there is more gender disparity in literacy in rural areas than in urban areas. Hence, with a national difference of 9.6 per cent, gender disparity is almost double in rural areas than it is in urban areas. If we compare gender disparity among states, we find that Rajasthan occupies the first position in all sectors, rural as well as urban. The top six states in all urban and rural areas are: Rajasthan, Jharkhand, Dadra and Nagar Haveli, Jammu and Kashmir, Uttar Pradesh and Chhattisgarh. The top five states in rural areas specifically are: Rajasthan, Dadra and Nagar Haveli, Jharkhand, Uttar Pradesh and Madhya Pradesh. The top five states in urban areas

**Table 9.** Matrix of Gender Disparity in India, 2011

Serial No.	States/Union Territories	All Areas		Rural Areas		Urban Areas	
		Gender Disparity	Rank	Gender Disparity	Rank	Gender Disparity	Rank
1	Jammu and Kashmir	20.4	4	22.2	6	14.9	2
2	Himachal Pradesh	13.6	18	14.5	20.5	5.0	30
3	Punjab	9.7	26	10.9	27	7.5	24
4	Chandigarh	8.8	27.5	12.6	24	8.7	20
5	Uttarakhand	17.4	12	20.4	10	9.8	16
6	Haryana	18.2	9	21.6	8	11.7	8.5
7	NCT of Delhi	10.1	25	16.3	18	10.1	14
8	Rajasthan	27.1	1	30.4	1	17.2	1
9	Uttar Pradesh	20.1	5.5	22.6	4	11.2	11
10	Bihar	19.7	7	20.7	9	12.1	7
11	Sikkim	11.0	24	12.2	26	7.7	23
12	Arunachal Pradesh	14.9	15	15.4	19	11.7	8.5
13	Nagaland	6.7	32	7.5	32	4.2	31
14	Manipur	13.7	17	14.5	20.5	12.4	5
15	Mizoram	4.0	33.5	8.4	31	0.7	35
16	Tripura	8.8	27.5	10.6	28	4.1	32
17	Meghalaya	3.1	35	3.1	35	3.4	34
18	Assam	11.5	22	12.4	25	6.9	27
19	West Bengal	11.2	23	12.9	23	7.4	25
20	Jharkhand	21.4	2	24.0	3	12.9	4
21	Odisha	17.6	11	18.9	12	10.3	13
22	Chhattisgarh	20.1	5.5	21.9	7	13.4	3
23	Madhya Pradesh	19.5	8	22.3	5	12.2	6
24	Gujarat	16.1	13	20.2	11	10.0	15
25	Daman and Diu	12.0	21	17.5	15	9.2	18
26	Dadra and Nagar Haveli	20.9	3	26.8	2	10.6	12
27	Maharashtra	12.5	20	16.6	17	7.2	26
28	Andhra Pradesh	15.8	14	17.9	13.5	11.4	10
29	Karnataka	14.4	16	17.9	13.5	8.6	21
30	Goa	7.9	29.5	10.1	29	6.6	28
31	Lakshadweep	7.7	31	6.0	33	8.0	22
32	Kerala	4.0	33.5	4.6	34	3.6	33
33	Tamil Nadu	13.4	19	17.0	16	9.5	17
34	Puducherry	17.9	10	14.4	22	8.8	19
35	Andaman and Nicobar Islands	7.9	29.5	8.6	30	6.5	29
	India	16.3	–	19.3	–	9.7	–

**Source:** Author's calculation based on data from the 2011 Census of India.

are: Rajasthan, Jammu and Kashmir, Chhattisgarh, Jharkhand and Manipur. If one examines the middle spectrum, that is, the eighteenth position out of 35 states and UTs, in all areas, it is Himachal Pradesh, in rural areas it is NCT of Delhi and in urban areas it is Daman and Diu. The least gender disparity in literacy in both areas and also in rural areas is in Meghalaya, while when only urban areas

are examined it is in Mizoram. In both urban and rural areas, Uttar Pradesh and Chhattisgarh, Chandigarh and Tripura, Goa and Andaman and Nicobar Islands, Mizoram and Kerala have equal gender disparity. In rural areas, Andhra Pradesh and Karnataka, Manipur and Himachal Pradesh have equal gender disparity. In urban areas, Arunachal Pradesh and Haryana have equal gender disparity.

Table 10 reveals that as many as 13 states fall between the literacy range of 71 and 80 per cent. For male literacy, 16 states fall between the literacy range of 81 and 90 per cent, while for female literacy, 11 states fall between the literacy range of 71 and 80 per cent. Regarding male literacy, there is no state where literacy is between 51 and 60 per cent although significantly there are eight states in this category for female literacy. In rural areas, there are four states in which female literacy rate is between 40 and 50 per cent, while in urban areas there is no state that falls in this category. There are eight states in which the female literacy rate is between 51 and 60 per cent, while in urban areas there is no state in this category. The range for male literacy is 24.9 per cent, while for female literacy it is 40.6 per cent revealing that there is more disparity in female literacy. The range for rural literacy is 33.2 per cent, while for urban it is 22.5 per cent revealing that there is more disparity in rural areas. Kerala is the most literate state even in rural areas. In urban areas, for both males and females, Mizoram is the most literate state. On the contrary, Bihar is the least literate state even in rural areas. But males in the rural areas of Arunachal Pradesh and females of Rajasthan are at the bottom of the literacy pyramid. The literacy rate in urban areas and even for urban males of Uttar Pradesh is the lowest in the country and female literacy of Jammu and Kashmir is lowest in India. In total, 24 states are above national average, while in urban areas also there are 24 states that are above national average and in rural areas there are 25 states above national average. Regarding male literacy, 23 states are above national average, while 24 states are above national average in female literacy. The most disturbing factor is female literacy in rural areas where 10 states are below national average.

Table 11 reveals that in the 0–5 percentage points gender disparity category, there are two states in the rural areas and six states in the urban areas. In the rural areas, there are nine states in the 21–25 percentage points gender disparity category, while there is no state in this category in the urban areas. In the higher level of gender disparity category, there is a state each in the 26–30 per cent and the 31–35 per cent category in rural areas, while there is no state in this category in urban areas. There are seven states in the 16–20 per cent points gender disparity category in the rural areas, while in the urban areas, there is only one state. If we look at the highest gender disparity, it is 27.1 per cent for all areas, 30.4 per cent for rural areas and 17.2 per cent for urban areas. On the contrary, the lowest disparity is 3.1 per cent for all areas including rural areas as well and 0.7 per cent for urban areas. This reveals that there is more disparity in rural areas. There are 18 states with literacy disparity above the national average in rural areas, while there is only one state in urban areas in this category.

**Table 10.** Frequency Distribution of States in Respect of Their Literacy Rates by Areas and Sex-2011 (Based on X-Y Formula)

Literacy Rates (%)	All Areas						Rural Areas						Urban Areas					
	Persons		Male		Female		Persons		Male		Female		Persons		Male		Female	
40-50	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0
51-60	0	0	0	8	2	0	0	0	0	0	8	8	0	0	0	0	0	0
61-70	8	0	0	8	11	3	3	10	0	0	10	10	0	0	0	0	2	2
71-80	13	10	10	11	11	14	14	10	0	0	10	10	4	0	0	0	11	11
81-90	11	16	16	7	9	14	14	2	23	2	2	2	23	12	12	19	19	19
91-100	3	9	9	1	2	4	4	1	8	1	1	1	8	23	23	3	3	3
Highest Literacy Rate	94.0	96.1	92.1	93.0	93.0	95.4	95.4	90.8	97.6	90.8	90.8	90.8	97.6	98.0	98.0	97.3	97.3	97.3
Lowest Literacy Rate	61.8	71.2	51.5	59.8	59.8	67.4	67.4	45.8	75.1	45.8	45.8	45.8	75.1	80.4	80.4	69.0	69.0	69.0
Range (highest-lowest literacy rates)	32.2	24.9	40.6	33.2	33.2	28.0	28.0	45.0	22.5	45.0	45.0	45.0	22.5	17.6	17.6	28.3	28.3	28.3
Most Literate State	Kerala	Kerala	Kerala	Kerala	Kerala	Kerala	Kerala	Kerala	Mizoram	Kerala	Kerala	Kerala	Mizoram	Mizoram	Mizoram	Mizoram	Mizoram	Mizoram
Least Literate State	Bihar	Bihar	Bihar	Bihar	Bihar	Bihar	Bihar	Rajasthan	Uttar Pradesh	Rajasthan	Rajasthan	Rajasthan	Uttar Pradesh	Uttar Pradesh	Uttar Pradesh	Jammu and Kashmir	Jammu and Kashmir	Jammu and Kashmir
States above National Average	24	23	24	25	25	24	24	25	24	25	25	24	24	24	24	25	25	25
States below National Average	11	12	11	10	10	11	11	10	11	10	10	11	11	11	11	10	10	10

**Source:** Author's calculation based on data from the 2011 Census of India.

**Table 11.** Frequency Distribution of States in Respect of Their Gender Disparity in Literacy by Areas-2011 (Based on X-Y Formula)

Gender Disparity (%)	General	Rural	Urban
0-5	3	2	6
6-10	7	4	15
11-15	11	11	13
16-20	8	7	1
21-25	5	9	0
26-30	1	1	0
31-35	0	1	0
Highest Disparity	27.1	30.4	17.2
Lowest Disparity	3.1	3.1	0.7
Range (highest-lowest disparity)	24.0	27.3	16.5
State Having Highest Disparity	Rajasthan	Rajasthan	Rajasthan
State Having Lowest Disparity	Meghalaya	Meghalaya	Mizoram
States above National Disparity (16.30%)	12	18	1
States below National Disparity (16.30%)	23	17	34

**Source:** Author's calculation based on data from the 2011 Census of India.

## Future Projections and Consequences

According to the 2011 Census of India, the female literacy rate is 64.60 per cent. In order to calculate the time period with which to achieve 100 per cent literacy, we have applied a time series analysis.

$$P_n = P_0 (1 + R/100)^n,$$

where  $P_n = 100$  (literacy to be achieved),  $P_0 = 64.60$  (present literacy).

$r = \text{rate} = 10.93$  (difference in literacy rates between 2011 and 2001)/10 = 1.093.

Putting these values in the above equation and solving, we get  $n = 40.20$ .

This means that for achieving 100 per cent female literacy, it will take nearly 40 more years from 2011, if all the conditions remain the same in future. At the current rate of progress, India will attain total female literacy only in 2051. Looking at it in another way, India will take more than a hundred years after Independence to become independent from female illiteracy. Then, the gender disparity in literacy will be eliminated.

## Conclusion

The article presents empirical analysis of gender disparity in literacy across the states of India and UTs. It observes that gender disparity increased continuously from 1901 to 1961 and for the first time gender disparity decreased by 1.08 per cent in 1971. In 1981, it again increased by 2.67 per cent. Since then, it has been continuously decreasing. Based on this study, we found that the state of Rajasthan has the maximum gender disparity in both rural and urban areas.

Meanwhile, the state of Meghalaya has the minimum gender disparity in rural areas and Mizoram has the lowest disparity in urban areas. The article concludes that there is an inverse relationship between literacy and gender disparity; it reveals that there is more gender disparity in rural areas than in urban areas. There is no state in India which has a better rate of female literacy than that of males. Consequently, there is an urgent need to focus on female literacy in all areas, particularly rural areas to address the issue of gender disparity.

## References

- Census of India (2011). Retrieved from [www.censusindia.gov.in](http://www.censusindia.gov.in)
- Das, Y. L., & Singh, S. N. (2002). Literacy campaign in Bihar: Problems and prospects. *Indian Journal of Adult Education* (New Delhi), 63(4), October–December, 32.
- Dighe, A. (1991). Women and literacy: Some policy considerations. *Indian Journal of Adult Education* (New Delhi), 52(1&2), January–March, April–June, 58.
- Goon, A. M., Gupta, M. K., & Dasgupta, B. (1983). *Fundamentals of statistics* (Vol. 1, 6th revised edition, pp. 392–395). Kolkata: The World Press Private Ltd.
- Government of India. (1986). *National policy on education* (pp. 7–8, 41). New Delhi: Department of Education, Ministry of Human Resource Development.
- . (2009). *Saakshar Bharat* (p. 1). New Delhi: Ministry of Human Resource Development.
- . (1998). *Towards a literate India* (pp. 2–5). New Delhi: National Literacy Mission, Ministry of Human Resource Development.
- Grover, R. P., & Bhardwaj, R. (2002). Gender inequity in literacy in Haryana: An analysis. *Indian Journal of Adult Education* (New Delhi), 63(4), October–December, 61.
- IAEA Newsletter. (2013, October). Statewise statement of population, literates and literacy rates of age group 7 and above by sex, 22(10), 5–6.
- . (2014, April). Statewise statement of population, literates and illiterates of the age group 7 and above by sex 2011, 23(4), 16.
- Institute of Applied Manpower Research, Planning Commission, Government of India. (2011). *India Human Development Report 2011: Towards social inclusion* (pp. 31–32). New Delhi: Oxford University Press.
- Patel, I., & Dighe, A. (1997). Gender issues in literacy education. *Journal of Educational Planning and Administration*, 11(2), April, 161.
- Raju, S. (1988). Female literacy in India: The urban dimension. *Economic & Political Weekly*, 29 October, p. 63.
- Shah, S. Y. (1999). *Encyclopedia of Indian adult education* (p. 329). New Delhi: National Literacy Mission, Ministry of Human Resource Development, Government of India.
- Sinha, S. (1981). Level of educational development among the SCs of Bihar. M.Phil. Dissertation, Jawaharlal Nehru University, New Delhi, India.
- Swamy, R. N. (2013). A bird's-eye view of problems plaguing tribal women's literacy in India. *Indian Journal of Adult Education* (New Delhi), 74(4), October–December, 31.
- Thangaraj, M. (1995). Analysis of literacy by social groups in India. *Indian Journal of Adult Education* (New Delhi), 56(4), 12.
- Thorat, Sukhadeo. (2009). *Dalits in India—Search for a common destiny* (p. 9). New Delhi: SAGE Publications.