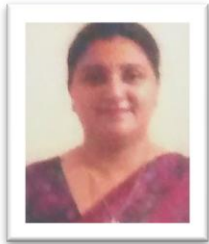


# Periodic Research

## Regional Imbalances and Growth of Literacy in Jammu and Kashmir (1981-2011)



**Anuradha Sharma**  
Head  
Deptt. of Geography,  
University of Jammu,  
Jammu.

**Taseem Ahmed**  
Assistant Professor  
Deptt. of Geography,  
Govt. Degree College,  
Rajouri

### Abstract

Literacy is the most significant distinguishing feature of a civilized man and a civilized society. It is prerequisite for the economic development, social advancement and demographic growth of any country. The remote hilly and far flung areas in India are generally characterized by low level of literacy and socio-economic development. The state of Jammu and Kashmir is no exception. The state remained neglected during the pre-independence period. However, in post-independence period, especially after 1981, the state of Jammu and Kashmir showed a positive trend in the level of literacy due to rapid expansion in educational facilities, free education in schools, emergence of middle class section of society, rapid growth in service sector and the positive attitude of parents to send their wards to schools especially females. The study examines the growth of literacy in the state during 1981 and 2011. The study reveals a significant change in literacy from 26.67 percent in 1981 to 67.16 percent in 2011. The improvement in rural literacy is more pronounced as it increased from 21.63 percent in 1981 to 63.18 percent in 2011. Though the Kashmir region dominates in all the social indicators but it lags behind in literacy rate when compared with other regions of the state.

**Keywords:** Socio-Economic Development, Demographic Growth, Rural Literacy, Free Education.

### Introduction

Literacy is one of the important indices of population quality. In addition to being an index of socio-economic development of an area, the literacy pattern and changes there in suggest the pace at which the new society is evolving. Literacy has an important role and bearing upon the political climate and life of a country. Though literacy by itself does not generate socio-economic progress, the lack of it can certainly be an impediment to the development process. Literacy also plays a crucial role in the process of demographic transition. Female education is important in the process of lowering fertility and mortality rates. There is a strong correlation between literacy and life expectancy. An educated and skilled workforce contributes to higher economic growth. Any type of governmental set up cannot function efficiently and to its best unless its citizens are literate. Being a sensitive indicator of cultural advancement of a society, it is also a vital element of socio-economic transformation of a country as it provides a basal structure for the acceleration of development process. Not only mass illiteracy is still prevalent but also there are sharp horizontal and vertical inequalities in literacy within the state. The state of Jammu and Kashmir enhanced its literacy by 40.49 percent points from 26.67 in 1981 to 67.16 percent in 2011 but still lags behind the national average by 5.81 per cent points. The trends in literacy are therefore, considered as an index of the pace at which the socio-economic transformation of society is taking place.

The population commission of United Nations considers ability to both read and write a simple message with understanding in any language a basis for classifying a person as literate. The census of India has adopted this classification. A person who can only read but cannot write, is not literate. It is not necessary that to be treated as literate a person should have received any formal education or passed any minimum educational standard. Literacy could also be achieved through adult literacy classes or through any non-formal educational system. Persons who are blind and can read in Braille are treated as literate. This has been the concept of literacy in Indian census and with this approach each and every person aged 6 years and above is recorded as literate. In this paper an attempt has been made to understand the present level of literacy as well as the

# Periodic Research

changing patterns in Jammu and Kashmir during the period 1981 and 2011.

## The Study Region

The area taken into consideration for the present study of literacy is the Jammu and Kashmir state. The state of Jammu and Kashmir is in the extreme north of India. Pakistan, Afghanistan and China surround it on three sides. The states of Punjab and Himachal Pradesh are to its south. It consists of three regions differing in topography and culture. The Jammu is the strong hold of Hindu Dogra and abounds with popular temples. It includes the city of Jammu, the state's winter capital. The valley of Kashmir, the second region, is a large fertile region enclosed by the high snow capped ridges of the pir-panjal range to the West and South, and the main Himalaya range to the east, Ladakh is the most northern region of the state with a black terrain of barren mountains. The state has been subject to political unrest since the late 1980's.

The state of Jammu and Kashmir is situated between 32° to 37° and 72° 3' North latitude and 72°, 35' to 80°, 26' east longitude. From north to south it extends over 640 kms and from east to west 480 kms. Geographically, the state is divided into four regions. First the semi-mountainous plain commonly known as Kandi belt, the second region includes siwalik ranges, the third, mountains of Kashmir valley and pir panjal range and the fourth is Tibetan tract of Ladakh and kargil. The state has a geographical area of 222,236 sq. kms. The state is demarcated into 22 districts and 82 tehsils.

## Objectives of the study

An attempt is made to achieve the following objectives:

1. To examine the trends in literacy in Jammu and Kashmir since 1981.
2. To investigate the level of literacy by sex and residence in 2011.

## Data Base and Methodology

The study is based on published data at district and tehsil level obtained from different sources. The major source of data are the census publications of the state, the digest of statistics, directorate of school education, Kashmir and Jammu regions. Suitable statistical and cartographic techniques are employed in the analysis of data and preparation of diagrams.

## Growth of Literacy

Since independence, the state of Jammu and Kashmir had missed two censuses (1951 and 1991) due to the disturbed conditions in the state. The data available on literacy (Table 1) relates to only three census years. An analysis of data shows that in 1981 literacy in the state was very low and only 26.67 persons in 100 were able to read and write. Among females the average was as low as 15.88 percent.

The very low level of literacy in the state was an extension of the existence of pre-independence conditions, physical and socio-cultural isolation, poverty and backwardness, engagement of more than 85 percent people in agricultural activities, agro-pastoral sustenance type of economy, pucity of schools and vagaries of climate.

**Table 1**  
**Jammu and Kashmir: Progress in Literacy (1981-2011)**

Year	General Literacy			Rural Literacy			Urban Literacy		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
1981	26.67	36.29	15.88	21.63	31.64	10.47	45.56	53.55	36.44
2001	55.5	66.6	43.0	49.8	61.7	36.7	71.9	80.0	62.0
2011	67.16	76.75	56.43	63.18	73.76	51.64	77.12	83.92	69.01
Growth in percent points (1981-2011)	40.49	40.46	40.55	41.55	42.12	41.17	31.56	30.37	32.57

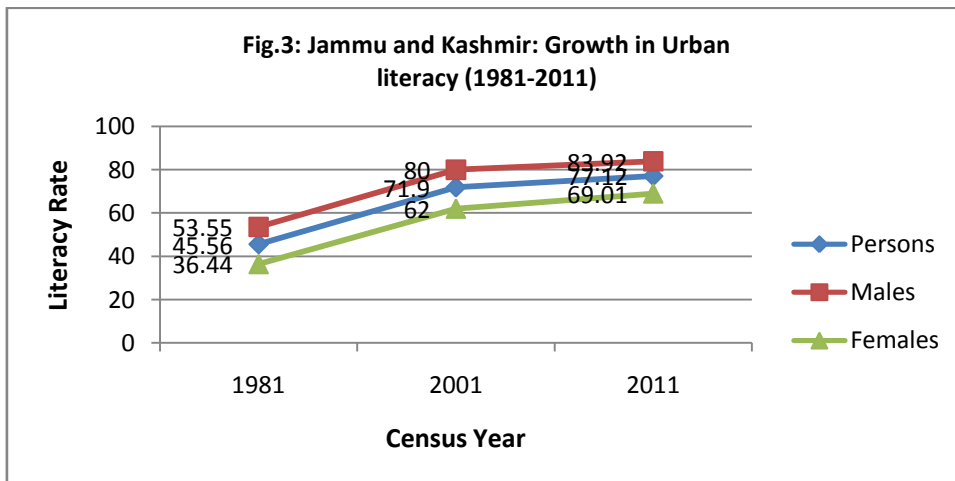
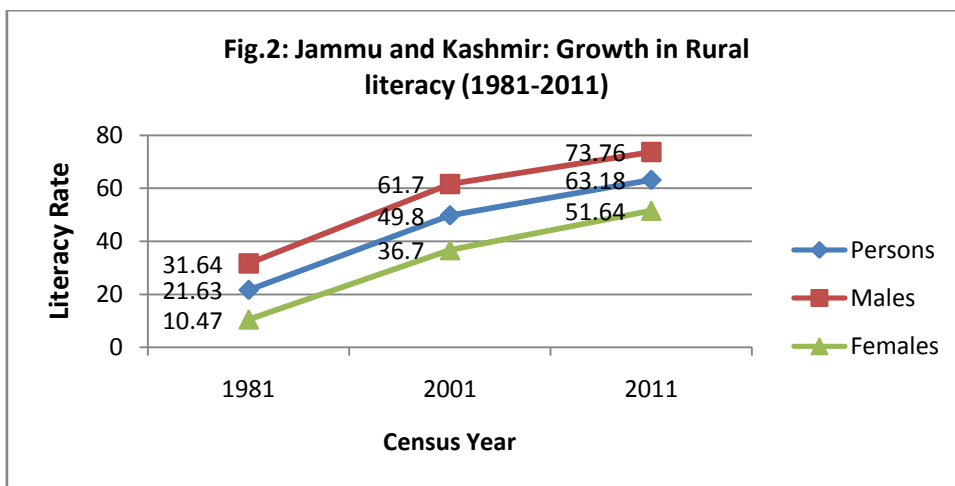
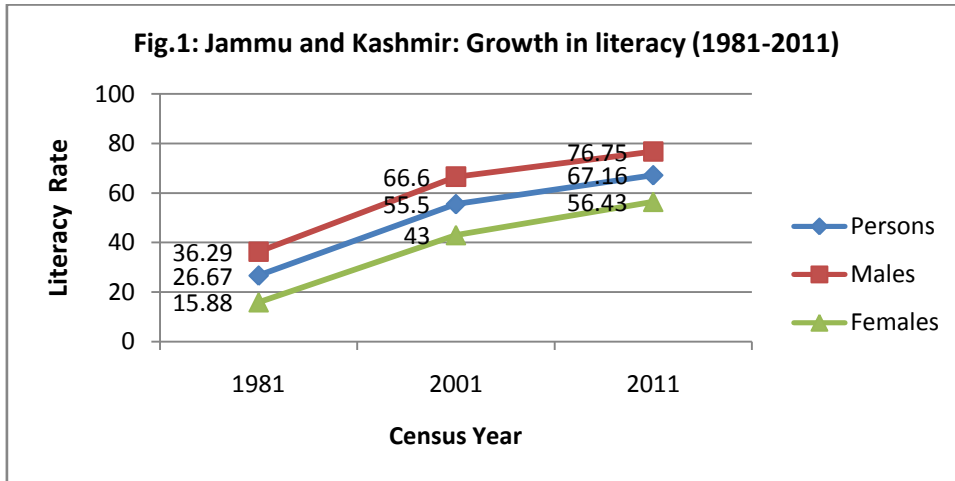
Source: Census of India, Primary Census Abstracts, 1981, 2001 and 2011.

The state of Jammu and Kashmir has recorded a substantial change in literacy during the last three decades (1981-2011) period. The total literacy rate of the state increased by 2.5 times from 26.67 percent in 1981 to 67.16 percent in 2011. This was the direct outcome of opening of new schools, appointment of more teachers and increase in the number of students on roll which in turn increased the literacy rate (Table 2). Moreover, the implementation of various educational development schemes such as provision of mid-day meal, free uniform, books, stationary items to students at primary and middle level had boosted the literacy rates in the state. These

incentives not only changed the attitude of poor people but also motivated them to send their wards to schools with the expectation that by acquiring some standard of education their children may get jobs in non-agricultural sectors.

The state had recorded an increase in literacy from 26.67 percent to 55.5 percent by 28.83 percent points during 1981 to 2001. In addition to opening of more schools, appointment of new teachers and continuation of government schemes, introduction of reservation policy in government jobs for scheduled population of the state contributed further to the improvement of literacy in the state.

# Periodic Research



**Table 2**  
**Jammu and Kashmir: Primary Institutions, Teachers and Students on Roll.**

Year	Number of Schools			Number of Students on Roll (lakhs)			Number of Teacher		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
1980-81	4725	2681	7406	3.50	1.99	5.49	6482	4177	10659
1990-91	6200	3042	9242	4.67	3.12	7.79	9835	6605	16440
2000-01	8078	2848	10926	6.10	5.09	11.19	16769	10763	27532
2010-11	13186	2017	15203	6.59	6.0	12.59	38982	24141	63123

Source: Digest of Statistics, Directorate of Economics and Statistics, Government of Jammu and Kashmir, 2011-12.

**Table 3:**  
**Jammu and Kashmir: Percentage of Trained Teachers and Teacher-Pupil, School-Pupil and School-Teacher Ratios in Primary Schools.**

Year	Percentage of Trained Teachers			Teacher Pupil Ratio	School – pupil Ratio	School Teacher Ratio
	Males	Females	Total			
1980-81	4725	2681	7406	25	36	1.4
1990-91	6200	3042	9242	26	47	7.40
2000-01	8078	2848	10926	31	78	2.52
2010-11	13186	2017	15203	20	83	4.15

Source: Digest of Statistics, Directorate of Economics and Statistics, Government of Jammu and Kashmir, 2011-12.

During 2001-2011, literacy in the state increased from 55.5 percent to 67.16 percent by 11.66 percent points. Although more schools were opened, new teachers were appointed and the proportion of students on roll also increased during this decade but the slow improvement in literacy could be associated with the poor economic conditions of parents, long history of turmoil and out migration of educated and well of people to other parts of the country. Although literacy increased by only 11.66 percent points during this period but the state has improved its rank from 32nd in 2001 to 30th in 2011 among different states and union territories of India. The literacy rate of the state was higher than Bihar (61.8 percent), Arunachal Pradesh (65.4 percent), Rajasthan (66.1 percent), Jharkhand (66.4 percent) and Andhra Pradesh (67.0 percent) in 2011. No doubt the literacy rate in 2011 was quite encouraging as more than 67 percent of the population of the state acquired the ability to read and write but the figure is discouraging when compared with the country as a whole and other neighbouring and hilly states. The slow increase in literacy could largely be attributed to the prevailing political unrest and turmoil since 1989 in which the basic infra-structure for education in many parts of the state is destroyed. Many schools were burnt down and teachers migrated to Jammu, Delhi, Chandigarh and other parts of the country. The important trends found in literacy during 1981-2011 are:

1. Literacy in Jammu and Kashmir was never above the national average during the period 1981-2011. The literacy rate improved from 26.67 percent in 1981 to 67.16 percent in 2011.
2. The literacy rate at state level has steadily increased from 26.67 percent in 1981 to 67.16 percent in 2011 showing an increase of 40.49 percent points over the three decades. The literacy rate crossed the significant milestone of 50 percent in 2001 census.
3. It was the first time since independence that an increase in two digit percentage points during 1981-2001 had occurred in case of all the three categories of persons, males and females. The state had recorded an increase in literacy from 11.03 percent to 18.58 percent during 1961-71. Literacy rate improved sharply to 26.67 percent during 1971-81 by 8.09 percent points. The literacy rate further improve to 55.5 percent during 1981-2001 by recording an increase of 28.83 percent points.
4. Literacy in Jammu and Kashmir has made remarkable progress since 1981, which is

supported by the results of census 2011. It is not only the literacy rates which have made progress over the time but the absolute figures of literacy have increased remarkably exhibiting its presence both in urban as well as rural areas of the state.

5. Jammu and Kashmir has continued its march in improving the rural as well as urban literacy rates. The rural literacy rate jumped by 41.55 percent points from 21.63 percent in 1981 to 63.18 percent in 2011. The higher growth of rural literacy was mainly due to increase in educational institutions which have almost doubled from 1980-81 to 2010-11 in rural areas.
6. Literacy rate of urban areas had not shown much satisfactory growth during the period 1981 – 2011. The urban literacy increased by only 31.56 percent points from 45.56 percent in 1981 to 77.12 percent in 2011.
7. With the expansion of educational infrastructure in rural as well as urban areas, the number of literates in the state have increased but has not been able to keep the pace with the increasing population which have resulted into increase in number of illiterates.
8. The male literacy moved forward by 40.46 percent points from 36.29 percent in 1981 to 76.75 percent in 2011 and among females it had gone up by 40.55 percent points from 15.58 percent in 1981 to 56.43 percent in 2011.
9. In 1981, the male literacy rate was 36.29 percent, whereas, it was only 15.58 percent in case of females. The gap in male-female literacy was 20.41 percent points. This large disparity continued in 2001 and 2011. While about three fourth of the males and half of the females were literate in 2011, the gap in literacy increased from 20.41 percent points in 1981 to 23.6 percent points in 2001. In 2011, the gap was marginally decreased from 23.6 percent points to 20.32 percent point which is an indication of improvement in female literacy.
10. The analysis of the progression of the literary rate during 1981-2011 census reveals that urban males had highest literacy rates while as the rural females were least literates. The analysis also shows that in all the census years the literacy among females remained at a disadvantages position than their counterparts. The urban areas had much literacy concentration than rural areas in 1981, 2001 and 2011.
11. The micro analysis of the facts show different and positive results as far as female literacy is

concerned. The female literacy at both rural and urban areas have shown higher growth in literacy than males. The highest progress has been made by rural females, whereas, least progress by urban males.

12. At combined, level females have registered a higher growth rate (40.55 percent points) in literacy than males (40.46 percent points) during 1981-2011.
13. The rural urban gap in literacy was 23.93 percent points in 1981 and decreased considerably to 13.94 percent points in 2011. While more than three-fourth of urban population was literate in 2011, literacy rate in rural areas was yet below two-third mark.

### General Literacy (2011)

The state has enhanced the literacy rate from 26.67 percent in 1981 to 67.16 percent in 2011 implying an increase of 40.49 percent points in three decades. Literacy rate improved in terms of percentage, while the absolute number of illiterates also increased from approximately 4.4 million in 1981 to 5.4 million in 2011. In 2011 census, only 56.43 percent of female population was literate against 76.75 percent of male population. Only one-fourth of the districts have literacy rates above the state average (Table 4). Jammu, Rajouri, Kathua, Leh and Kargil have higher literacy rates than the state average. Badgam district have the lowest literacy rate. Despite a good degree of connectivity and accessibility some of the district still have lower literacy level (Table 4). There are wide regional variations across regions, districts, rural-urban and male-female population. Jammu district displayed the highest literacy rate in the state. Jammu and Kathua districts always remained advanced in education as compared to other districts. The literacy rates in Jammu division range from 54.27 percent in Ramban district to 83.45 percent in Jammu district. In Kashmir valley, the literacy rates range between 56.08 percent in Badgam district to 69.41 percent in Srinagar district. The Leh and Kargil districts of Ladakh region have very high literacy rates. It is clear from the table-4 that there was a dominance of illiterates in the valley of Kashmir. The difference between the two districts having the two capitals of the state was very wide (14.04 percent points).

High proportion of rural population, inaccessibility, hilly terrain, low connectivity, late start of education, low educational infrastructure, agrarian economy, high proportion of scheduled population especially Gujjar and Bakerwals (nomads), low rural-urban interaction, conservative attitude of parents, very low female education and mobility, low level of socio-economic development, general backward of

masses, physical isolation and low level of urbanization are the factors associated with districts of low literacy level.

On the other hand, the districts having high literacy level have population engaged in secondary and tertiary activities, high degree of rural-urban interaction, high degree of urbanization, high level of socio-economic awakening, high degree of connectivity by railway, roads with outer world, adequate number of educational institutions, exposure to foreigners, early start of education and greater proportion in defence service.

### Literacy by Residence (2011)

In Jammu and Kashmir the proportion of urban literates was more than 77 percent, whereas the proportion of rural literates was below 64 percent. There exists wide variations in rural and urban literacy rates in different districts of the state. In 2011 the proportion of rural literates varied from 52.82 percent in Ramban district to 79.93 percent in Samba district. The proportion of urban literates varied from 65.45 percent in Bandipora district of Kashmir valley to 90.38 percent in Rajouri district of Jammu division (Table 4). The disparity in urban and rural literacy rates is associated with the differences in the type of economy, degree of concentration of educational institutions and the migration pattern of population in urban and rural areas. The rural and urban differences in literacy are narrowing down due to the opening up of a large number of schools in the rural areas and also the increasing degree of socio-economic awakening among the rural masses.

An analysis of table 4 reveals an interesting picture. Rajouri district of Jammu region having a remote location have highest urban literates. Rajouri with 90.38 percent urban literacy rank first in the whole state followed by Samba (88.62 percent), Jammu (88.51 percent) and Poonch (88.26 percent). Leh and Kargil districts of Ladakh region rank 3rd and 11th in 22 districts of the state. The high literacy among the urban residents of Samba, Rajouri, Jammu, Udhampur, Poonch and Leh districts is due to educational awareness among the urban population and high concentration of educational institutions in the urban areas. The urban centers of Kashmir region have low literacy rates as compared to Jammu and Ladakh regions. In Kashmir valley the urban literacy rates range from 65.45 percent in Bandipore to 78.65 percent in Shopian district. The low urban literacy rates in the districts of Kashmir valley was due to mass migration of Kashmir Pandits and other literate population to Jammu and other parts of the country due to disturbed conditions prevailing in the state.

# Periodic Research

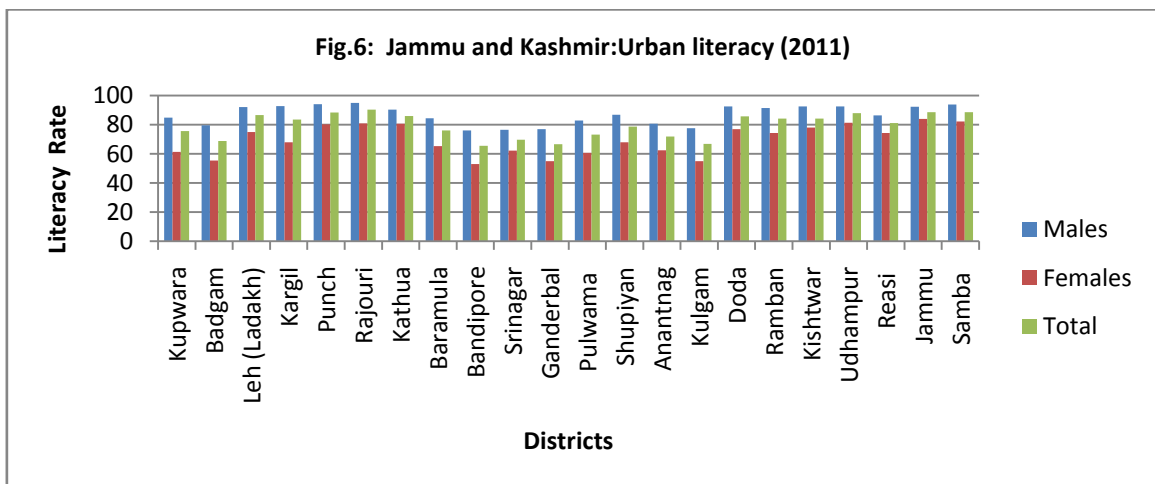
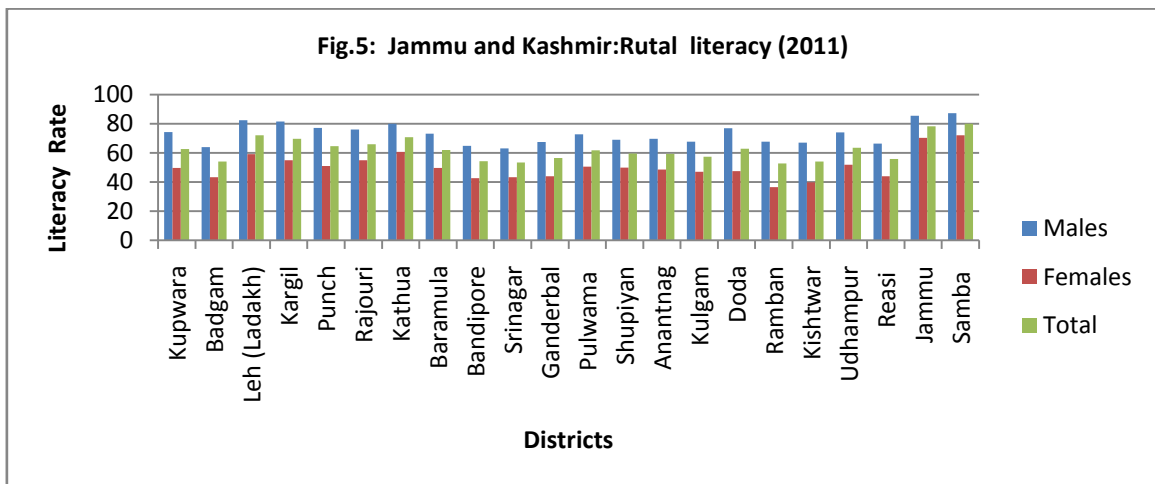
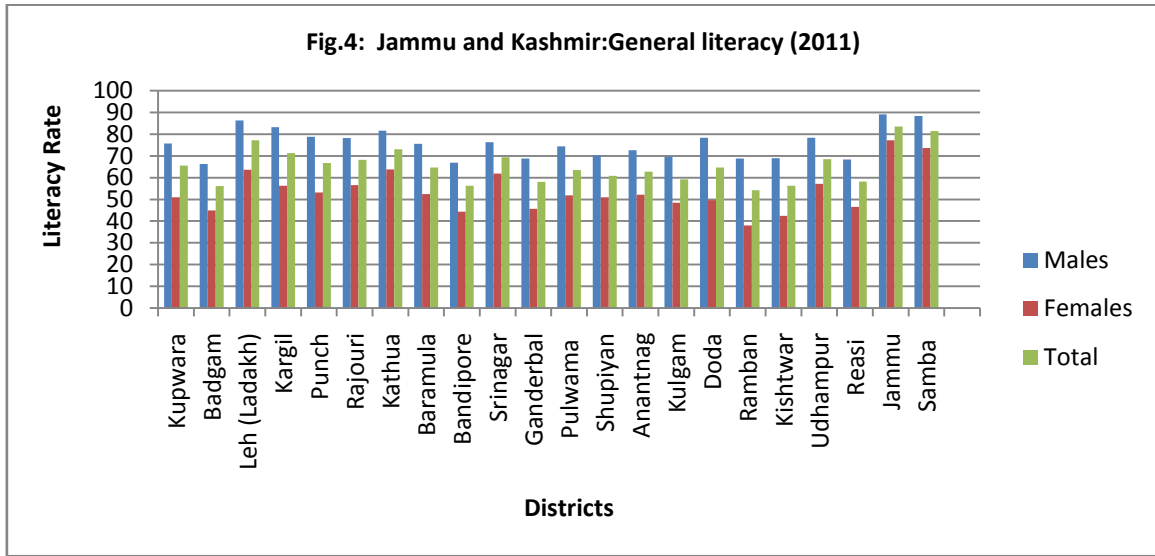
Jammu and Kashmir: Literacy Rates and Literacy Indicators (2011)

Districts	General Literacy			Rural Literacy			Urban Literacy			No. of primary Schools	Road Length per 100 sqkms of area	Percentage of BPL Population
	Males	Females	Total	Males	Females	Total	Males	Females	Total			
Kupwara	75.68	50.95	65.51	74.20	49.67	62.72	84.81	61.38	75.60	913	47.04	NA
Badgam	66.30	44.85	56.08	64.0	43.29	54.01	79.46	55.38	68.87	659	99.78	23.61
Leh (Ladakh)	86.31	63.56	77.20	82.47	59.16	72.10	92.09	74.86	86.59	216	3.33	21.38
Kargil	83.15	56.30	71.34	81.62	54.98	69.64	92.82	67.82	83.55	253	6.84	29.8
Punch	78.84	53.19	66.74	77.23	50.90	64.68	94.16	80.18	88.26	578	35.60	29.0
Rajouri	78.13	56.57	68.17	76.02	54.94	66.0	94.99	80.87	90.38	1113	16.31	20.83
Kathua	81.53	63.72	73.09	79.93	60.76	70.83	90.41	80.67	85.86	891	38.61	33.85
Baramula	75.53	52.38	64.63	73.28	49.63	61.96	84.38	65.21	76.01	1012	47.9	38.45
Bandipore	66.88	44.34	56.28	64.90	42.58	54.33	75.94	52.96	65.45	500	76.13	30.80
Srinagar	76.25	61.85	69.41	63.17	43.29	53.51	76.43	62.11	69.63	242	106.76	5.92
Ganderbal	68.85	45.71	58.04	67.38	43.95	56.47	76.87	54.95	66.49	309	37.99	19.12
Pulwama	74.36	51.80	63.48	72.79	50.46	61.85	82.79	60.71	73.15	505	68.60	22.74
Shupiyani	70.27	50.90	60.76	69.0	49.90	59.54	86.74	67.85	78.65	251	163.14	14.37
Anantnag	72.66	52.19	62.69	69.59	48.49	59.25	80.71	62.42	71.97	631	42.58	10.95
Kulgam	69.59	48.49	59.23	67.59	46.97	57.41	77.62	54.96	66.75	327	54.17	25.36
Doda	78.41	49.69	64.68	77.02	47.38	62.75	92.46	76.94	85.61	794	7.77	25.05
Ramban	68.82	38.04	54.27	67.62	36.49	52.82	91.33	74.35	84.21	320	NA	31.53
Kishtwar	68.92	42.36	56.20	67.04	39.89	53.98	92.58	78.04	84.07	NA	26.22	NA
Udhampur	78.36	57.10	68.49	74.14	51.80	63.42	92.56	81.21	87.96	604	NA	22.54
Reasi	68.38	46.59	58.15	66.46	43.98	55.85	86.35	74.35	81.06	343	73.48	32.94
Jammu	89.08	77.13	83.45	85.56	70.33	78.24	92.39	83.99	88.51	960	NA	11.59
Samba	88.41	73.64	81.41	87.24	72.0	79.93	93.75	82.24	88.62	343	NA	32.50
J&K	76.75	56.43	67.16	73.76	51.64	63.18	83.92	69.01	77.12	-	-	-

Source: Census of India, 2011.

[www.jkeducation.gov.in](http://www.jkeducation.gov.in)

# Periodic Research



The Samba district with 79.93 percent literacy and Srinagar district with 53.51 percent literacy were at the two ends of the scale in terms of rural literacy. In Jammu region, Samba district was followed by Jammu (78.24 percent), Kathua (70.83 percent) and Rajouri 66.0 percent. All the districts in Jammu division have rural literacy rates more than 55

percent. Leh and Kargil districts of Ladakh region have 72.1 percent and 69.64 literates among their respective rural population. In Kashmir region the highest rural literates are found in Kupwara (62.92 percent) and lowest in Srinagar (53.51 percent). The reason for low literacy could be lack of educational infrastructure, low female literacy rates, lack of

attention towards female education, low rural-urban interaction, involvement of people in horticulture and handicraft industry and migration of educated people to urban areas and other parts of the country.

## Literacy by Sex (2011)

Literacy among males is found higher as compared to females in developing countries of the world. As per census 2011, 76.75 percent of male population was registered as literate as compared to 56.43 percent of total female literates. The state has made remarkable progress in female literacy from 15.88 percent in 1981 to 56.43 percent in 2011 by 40.55 percent points. But still lags behind the national average of 8.17 percent points. Jammu and Kashmir ranked 32nd in female literacy as compared to 30th position in overall literacy rate among all states and union territories of India. The low level of female literacy could be attributed to disturbed conditions since 1989, which have destroyed the basic infrastructure for education in many parts of the state and caused a decline in the enrollment of children particularly the female child.

An analysis of table 4 shows that wide disparities exist in female literacy at district level. Three districts of Jammu division (Jammu 77.13 percent, Samba 73.64 percent and Kathua (63.72 percent) have highest female literacy in the state. Ramban district with 38.04 percent literacy is the least literate district in terms of female literacy in the state. In Jammu region, the female literacy ranges from 77.13 percent in Jammu to 38.04 percent in Ramban district. A contrasting picture exists in the valley of Kashmir where female literacy ranges from 44.39 percent in Bandipora district to 61.85 percent in Srinagar district. Both Kargil and Leh districts of Ladakh region have better female literacy rates. The Jammu and Ladakh regions are better placed in female literacy as compared to Kashmir valley.

There were also wide regional variation in male literacy from one part of the state to another. Out of 22 districts only 9 districts have literacy rate higher than the state average. The Jammu district with 89.08 percent male literacy is the most literate district of the state, whereas, Badgam district with 66.3 percent male literacy is the least male literate district in the state. Both these districts have a difference of 22.78 percent points in male literacy rates in 2011. In Jammu region the male literacy range from 68.38 percent in Reasi district to 89.08 percent in Jammu district whereas, in Kashmir region the male literacy range from 66.3 percent in Badgam district to 76.25 percent in Srinagar district. Both Kargil and Leh districts of Ladakh region have very high male literacy rates (Table 4).

High degree of urbanization, early start of education, high rural-urban connectivity, high degree of socio-economic awakening, good educational infrastructure contributed significantly to the high male as well as female literacy in Jammu region. In Leh and Kargil the high male and high female literacy rates were associated with great exposure to external world, dominance of adventure tourism, good air connectivity with Chandigarh, Jammu and Delhi. Gender inequality, pardah system, conservative

attitude of parents, lack of female teachers, low status of women, under age marriage, late start of education in Kashmir region resulted into low female literacy rates.

## Conclusions

The Jammu and Kashmir state during the post-independence period has witnessed a substantial growth in literacy. The overall literacy has increased by nearly 2 times during last 30 years from 1981-2011. The increase has been more for females and rural population. Overall 67.16 percent of the population have acquired the ability to read and write in 2011. The increase in literacy can be attributed to incentives provided by the government for the promotion of education and opening of new schools, growing socio-economic awakening, positive attitude of parents towards female education, reservation policy for scheduled population and other backward areas, scholarships, mid-day meal and high exposure to external world.

Jammu, Samba, Kathua, Leh and Kargil districts have registered higher literacy rates because of the interaction of these districts with the rest of the country. Srinagar district being the capital for winters has low literacy due to emigration of the educated people to other parts of the country. To conclude, the growth in literacy in Jammu and Kashmir is one of the lowest achievement combined with significant inequalities across the regions. Particular attention needs to be paid to the gender gap. More schools, adequate funds and other infrastructure facilities need to be provided at village level.

## References

1. Census of India (1983): Primary Census Abstract, General Population, Series 8, Jammu and Kashmir, Part II-B, Registrar General, New Delhi, pp. 6-7.
2. Census of India (2011): Primary Census Abstract (CD), Jammu and Kashmir.
3. Chandna, R.C. (1986): A Geography of population, Kalyani publishers, New Delhi, pp. 171-186.
4. Chohan, A.S. (1966). Development of Education in the Jammu and Kashmir state, Atlantic Publisher, New Delhi.
5. Gore, M.S., (1994): Indian Education: Structure and Process", Ramat Publications, Jaipur, pp.36.
6. Gosal, G.S. (1979): Spatial perspective on literacy in India, population Geography, vol.1, Nos. 182, pp.41-76.
7. Hazzra, Joyoti (1977): Women literacy, Geographical Review of India, 59, pp 62-74.
8. Kaur, B. (2003): Progress of literacy in Punjab, Madaan Publications, Patiala pp 21-27.
9. Kumar, S. and others (2003): Primary Education in Rural Areas: An alternative model, Economic and Political weekly, vol.38, No.34, August pp. 3533-36.
10. Sawant, S. B. and Athewale, A.S. (1994): Population Geography, Mehta Publishing House, Pune, pp. 118-119.