

A CORRELATIONAL STUDY BETWEEN SEX RATIO AND LITERACY RATE MATRIX IN INDIA: A CASE STUDY OF JAMMU AND KASHMIR STATE

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ABSTRACT

Changing Demographic statistics overwhelmingly have both instantaneous and distant policy ramifications for all the nations of the world, especially for India, which is going to emerge as the world's populist country in near future. The country, on one hand, is expected to enjoy an adverse sex ratio. The situation is almost identical in the state of Jammu and Kashmir. The panorama demands a careful investigation into gender statistics. Accordingly, the study based on secondary data attempts to examine the influence of literacy and illiteracy on selective sex births in rural and urban areas. The study on the basis of parametric analyses finds that literacy significantly contributes to selective sex births both in urban and rural areas and illiteracy largely favors unselective sex births. Moreover, the study observes that selective sex births syndrome is overwhelmingly adopted by the literate population. This seems a major reason for the aggravated sex ratio in the state of Jammu and Kashmir. Moreover, the study on the basis of some advanced studies in medical science emphasizes that eliminating feticide on the basis of advanced medical aid is yet not a full proof procedure to know exactly the type sex of new birth in advance. Therefore, the paper attempts to refute the belief that the sex of a foetus not be determined exactly. The reality the fact is that the sex of a foetus cannot be determined exactly before the actual birth. Thus the study concludes that the gender statistics imbroglio is a very crucial issue and its myths and realities should be exposed in the light of advanced medical science along with eliminating emerging socio-economic evils in the society.

Key words: Gender, Sex Ratio, Illiteracy, feticide, correlation, selective

I. INTRODUCTION

Rightly, India is the second most populated country in the world after China. The population of India is projected to surpass China by 2024 and it is expected that it would become the habitat of more than 1.5 billion people by 2030 despite the fact, that India records recede in population growth from 2.3 percent to 1.3 percent in the decadal population growth data between 1972 to 1983. At

present, India has more than 50 percent of its population below the age of 25 years and 65 percent below the age group of 35 years. The average age of an Indian is 28 .4 years compared to 37 for China and 48 years in Japan. The population data of India hints at a mix of favorable and somewhat uneven disturbing changes. Gender data is one of them. Factually, Gender statistics have a crucial significance for social scientists, demographic experts, anthropologists, policymakers, etc. It is a comprehensive domain that incorporates all the areas of demographic data involving male and female composition. The sex ratio is one such aspect that relates the gender statistics. It is one of the most important social parameters of a society that indicates the balance between males and females says Christophe (2007). The sex ratio means the number of females against 1000 males. It typically refers to the number of females' available to one thousand males. The sex ratio is a proposition that is used to indicate the proportion between men and women (Suresh,1990). It varies from one area to another area and from one age group to another group depending on the age-specific mortality rates and sex-specific migration rates. In India, the sex ratio has remained quite low for all ages, especially in the pre-independence period. Suresh (1990) reports that life expectancy started to increase regularly in India after 1920, it appears that men reaped more benefits from this progress than did women. On the whole, health facilities, improved nutrition and better protection against epidemics or death were geared more towards enhancing survival conditions for boys and men, which was considered a prime objective for many households and communities. Thomson Reutex Trust Law Women in its recent Survey says that India ranks fourth as the most dangerous place for women due to the increasing number of female infanticides, foeticides, and human trafficking. The other three countries include Afghanistan, Congo, and Pakistan. The prospect of a further worsening of India's sex composition requires close monitoring of current sex-ratio trends in the country. In India especially in the state of Jammu and Kashmir, the phenomenon of gender statistics is much more difficult to understand due to the heterogeneous composition of the population in terms of culture, religion, socio-economic factors, and government regulations etc. Christophe (2007) views that the Indian scenario of female discrimination is extremely complex in view of India's social and economic diversity. The interplay of cultural and economic factors, along with the impact of policy initiatives has produced a heterogeneous situation, in turn, this

complexity offers ways to better understand the mechanisms at work, and to inform the policy debate on the struggle against gender discrimination. In this context, the existing literature on gender statistics has unfolded that advanced medical science is a basic culprit for deteriorating sex ratio in India. Therefore, in view of the gravity of the situation, this paper is a modest attempt to unfold the myths and realities that are responsible for the poor sex ratio in the state of Jammu and Kashmir.

II. LITERATURE REVIEW

The credit for discovering the problem of gender inequality primarily goes to Amartya Sen (1990) in the 1990s. Thereafter, it was aggressively highlighted by the research of reports of world bodies including UNO. However, in the Indian context, the research on demographic issues is going on prior to 1871 (Dyson and Moore 1983). Factually, today adverse sex ratio is often seen as a great socio-economic issue in the world over (Ruchi, 2018). In fact, a balanced sex ratio and high literacy rate are the two vital indicators of socio-economic and cultural advancement. The sex ratio indicates the number of females available against 1000 males in a particular region. It unfolds gender-based population equality in a country hints Majumdar (2013). While Chandna (2015) says that literacy is one of the important aspect of demography and is more often considered as a fairly reliable index of socio-cultural and economic advancement. Literacy and sex ratio usually share relation between themselves and it is overwhelmingly expected that high literacy would significantly lead to high sex ratio. Nevertheless, the research of Ruchi (2018) has revealed that the sex ratio and literacy are inversely correlated indicating that growing literacy led to declines in the sex ratio. Similarly, the research of Kumar and Yadav (2018) have shown that the literacy and sex ratio are negatively correlated and move often in an opposite direction. Supporting the argument, the research of Bhalotra and Cochrane (2010) unfold that women education and sex ratio share opposite relation and more education for women has been found to worsen child sex ratios, because women with more education want to have fewer children overall, but want a son—are more likely to abort girl children (Mayer 1999; Das Gupta and Mari Bhat 1997). Further strengthening the argument the research outcome of Bhalotra and Cochrane (2010; Jha et al (2011); Madan and Breuning (2014) have noted that this phenomenon is universally visible in most parts of

the India predominantly in the urban packets and among the literature women and the discourse is exclusively facilitated by scientific advancement of medical science and access to prenatal sex determination.

Apart to the advancement in medical science for prenatal sex determination, the researchers have rolled out other factors that are also responsible for low sex ratio in the country. In this context, Dyson and Moore (1983) have seen kinship structures enjoys distinctive weight for adverse sex ratio in India. While Das and Gupta (1987), Krishnaji (1987) Miller (1997) have found socio economic status is the basic culprit for adverse sex ratio in country. Similarly, the research of Rosenzweig and Schultz (1984); Berik and Bilginsoy (2000), have unfolded that minimal employment opportunities for adult women and their poor economic value contribute to low sex in the country. Likewise, Das Gupta and Mari Bhat (1997); Jayachandran (2017); Malhotra, Vanneman and Kishor (1995) reported that overall fertility decline leads to adverse sex ratio. The research of Agnihotri, Palmer-Jones, and Parikh (2002) and Kishor (1993) have found that low female labor-force participation and low wage earnings pushes adverse ratio in India. Further, the research of Chakraborty (2015) hints about the trade openness spurt sex ratio inequality in India. Similarly, the research findings of Murthi, Guio, and Dreze (1995); Sudha and Rajan (1999) reveal that development/urbanization and Bhalotra, Brule, and Roy (2020) reveal the female inheritance rights contribute to adverse sex ratio. The underline commentary in view of literature review lead to the conclusion that literacy and sex ratio are not more often independent to each other, however are overwhelmingly inversely related all through in the Indian context which may not or may not be consistent in the global context.

III. METHOD

The study is exclusively based on secondary population data relating to literacy, and sex ratio. The data was collected from both official and nonofficial records of the department of economics and statistics, planning and development, and department of information including journals, research papers, magazines, and internet, etc. The data collected were tabulated and put into various statistical operations to derive results and arrive at conclusion.

Objectives

The study has been undertaken to attain the following objectives.

- To study the composition of gender statistics in India and in the state of Jammu and Kashmir
- To map the sex ratio and literacy changes in India and in the state of Jammu and Kashmir
- To study the influence of literacy on sex ratio in India and in the state of Jammu and Kashmir
- To examine the correlation between sex ratio and literacy
- To underline the causes for low sex ratio in India and in the state of Jammu and Kashmir
- To suggest the measures for achieving better sex ratio in India and in the state

Nature of Study: The study is correlational and analytical by nature

Hypothesis

Null Hypothesis: There is a significant inverse relation between high literacy and low sex ratio in the state of Jammu and Kashmir.

Alternative Hypothesis: The literacy and sex ratio are significantly independent to each other

Scope of the Study: The scope of the study is confined to the state of Jammu and Kashmir from the year 1991-92 to 2021-22

IV. RESULTS and DISCUSSIONS

The sex ratio measured by the number of females per 1000 males is an indication of gender equality in a region. Biologically, a girl child is more resistant to disease and more likely to survive infancy than a male child, but the sex ratio shows an adverse trend in India indicating that a male in society is preferred over a female. This has been confirmed by the research of Majumdar (2013); Chanda (2014) and Ruchi (2018).

Gender Statistics at All India Level

Adverse Gender statistics is a most sensitive issue for demographic scientists and policy think tanks says Sen (1990). It has long-run policy ramifications for the country as a whole. The adverse gender statistics that existed even during pre-colonial periods reports Majumdar (2013). The British administration has observed male-dominant sex ratio in India in many parts of India during the 19th century as reported by the research of Agnihotri (2000 ; Croll, (2000) and Attane and Guilmoto (2007). While Visaria (1971) has found that usually high mortality levels are prevalent among women of all ages. The practice of female infanticide had been detected early on in some provinces of West India, where a few caste groups chose to limit the number of daughters by killing them immediately after birth. However, the real culprit was the less visible impact of excess female mortality among infants and children. Extremely high death rates observed during the colonial period meant that more than a quarter of children born would not reach the age of 5, a slight level of female excess mortality could thus translate into a significantly reduced number of girls. This declining trend of sex ratio continued even in the post-independence period as can be seen from the given table below.

<Table No 1>

<Table No 2>

The above table 1 and 2 statistics clearly show that sex ration in India over the last more than one century is continuously declining. It has gone down by 12 (1972-1960) points from 1901 to 1911. The availability of technology to determine the sex of foetus and the practice of aborting a female foetus are viewed a predominant reason for such adverse situation. The similar findings have been reported by the research of Bhalotra and Cochrane (2010) ; Guilmoto (2009); Jha et al (2011) ; Madan and Breuning (2014). Moreover, the adverse sex ratio in Indian union is attributed to high women mortality rates. it is seriously felt that extremely high death rates observed during the colonial period meant that more than a quarter of children born would not reach the age of 5; a slight level of female excess mortality could thus translate into a significantly reduced number of girls. As a result, the sex ratio did not decrease with age in India, as observed elsewhere. Higher mortality conditions were also at work among

young adult women (maternal mortality), and even among some older groups (such as widows). However in a massive achievement, India's sex ratio has improved in 2021 having 1020 females to every 1000 males - clocking a female majority for the first time. As per the new National Family Health Survey 2019-21 (NFHS-5) released hints that India is moving closer to the global sex ratio, where out of 201 countries/regions estimated by United Nations, 125 have more females than males. Fourteen countries have a male ratio of less than 90, and 41 has less than 95. The rise in sex ratio in India seems due to variety of factors like drop in legal marriage age for both men and women to 23.3% and 17.7% respectively, decline in fertility rate to 2%, and infant mortality to 35.2. The position is almost identical in all the states of Indian union as is visible from the table No 2

<Table 3>

The data presented in the table no: 3 unfolds that the sex ratio for the majority of the states of the Indian union over the last three decades is continuously dwindling especially in the northern states where the sex ratio is pegging below 900 mark. While, it is fairly better in some southern states of India like Kerala Tamil Nadu, Andrapradesh and Chatisgrah. The sex ratio in these states has remained somewhat closer to the 1000 mark. The UT of Punjab, Haryana, and Jammu and Kashmir record adverse sex ratios 818, 877 and 8883 against 1000 men respectively. This seems predominantly due to low socio-economic conditions and undefined population policy in these states. Here it is pertinent to mention, that the states which enjoy a better sex ratio have robust medical care systems in place along with the balanced nutrition facilities available for pregnant women and children through the extensive network of children and women welfare-centric institutions. These facilities help to improve the health and nutrition status of its women and children and as such were able to attain a reasonably better sex ratio. The research of Ruch (2018) has unfolded similar findings in the context of adverse sex ratio analysis. While the other research studies (Mujamdar , 2013; Chanda 2014) refute the argument by saying that women are least benefited under welfare schemes as compared to men. These research findings, therefore, plead that there are the number of other factors for low sex ratio (besides the advancement of medical science for elimination of female fetus) that force the women not to have the girl child compared to male

child, This may include poor plight of women in society, early marriage, dowry, slavery attitude of society towards the women, excessive disrespect shown by men towards women, not having ability to earn livelihood as men earn etc. Therefore, the low sex ratio is believed significantly to be an outcome of “Women Neglect Syndrome”. The research of Agnihotri, Palmer-Jones, and Parikh (2002) and Kishor (1993) revealed somewhat similar facts vis-à-vis the background of adverse sex ratio in India. Nevertheless, with the advancement of medical science and consequent upon the growing socio-economic evils associated with women, deliberate attempts to abort the unwanted births is seen a major factor for poor sex ratio in Indian states. Das Gupta (1987) and (Miller) 1981 report the similar facts.

Gender Statistics in Jammu and Kashmir

In the state of Jammu and Kashmir, low sex ratio is a matter of serious concern for the government and demographic scientists. Despite some marginal improvement, the state has registered continuously low sex ratio over the last more than three decades. At the national level the sex ratio has increased from 933 females per 1000 males in 2001 to 940 females per 1000 in 2011 and 1021 females per 1000 males in 2021 registering a surge of twenty eight points during the last three decades. In fact, for the first time India's sex ratio is inching closer to the global sex ratio. While, sex ratio in Jammu and Kashmir has dropped by nine points from 892 to 883 in 2001 to 2021. Within the state, lowest sex ratio were recorded in the district Leh 690 and Kargil 810, Rajori 860 and Bandipora 889. While the highest sex ratio were recorded in Kulgam and Shopian, 959, Anantnag 927, Doda 919 and Srinagar 900. These districts have sex ratio somewhat inline to the national average. Consistent to the national level, the researchers opine that low sex ratio in the state is largely due to the availability of medical sex determination facilities. Supporting the argument, one independent study about female feticides' in 2007 reported that about 13 percent of diagnostic centers in valley carried out gender determination test with respect to selective births. The study further reports that, out of conceived female sample respondents about 10 percent have gone for the first sex determination test, while 30 percent sample respondents have gone for the second test and aborted a girl test. Besides the unregulated and secret medical care, it seems that there are other factors contributing to adverse sex ratio in the state. Accordingly,

the study found that literacy, modernization, two-child policy slogan, existing social evils are responsible for adverse ratio in the state. These findings are in tune with the research of Das Gupta and Mari Bhat(1997); Ruchi (2018) and Kishore (1993).

Gender Statistics and Literacy

The literacy rate is measured as a percentage of population aged seven years and above who are able to read, write and form simple sentences as per National Statistical Office (NSO) 2021. A high literacy rate is an indication of socio-economic development of a society and vice versa. In India, male literacy rate (84.70 percent) is higher than female literacy rate (70.30 percent), the same is true in the state of Jammu and Kashmir. According to the a new survey of the National Statistical Office (NSO) male literacy in Jammu and Kashmir is 85.70 percent which is much higher than the female literacy rate 68 percent. The survey reveals that in rural areas, female literacy is lower than urban area. The urban female literacy rate is (75.70 percent) and literacy rate of women in rural areas is 66 percent. The female literacy in the state of Jammu and Kashmir hovers around 68 percent, which is around 9.70 percent lower than the national average as per census 2021. In order to study the correlation between literacy and sex ratio both in urban and rural areas the study the used the data pertaining to two variables as under in table no: 4

<Table 4>

From the above table No 4, it is evidently clear that the sex ratio is fairly better in rural areas than urban areas while literacy is appreciably high in urban pockets than in rural ones. This in another sense hints that rural areas have a somewhat good number of females than urban areas and urban areas enjoy high literacy rate than rural areas. From official statistics, it is fairly deduced that high literacy **contributes to a low sex ratio while low literacy spurts a high sex ratio.** The finding proves correct as their overall Karlpearson's coefficient of correlation appeared negative at 0.516, while for rural and urban areas it appeared negative at 0.363 and 0.5034 respectively. It implies that the null hypothesis is accepted which presumes that literacy contributes to declining in sex ratio. This finding is reinforced by the other studies (Agnihotri , 2000: Corll ,2000) low sex ratio is overwhelmingly visible among the elite and high literate

classes of the society. In order to further reinforce the above results obtained by using Karl Pearson's correlation coefficient, the data was further put into simple regression analysis.

Correlation and Regression Analysis

In order to find the relationship between the two variables literacy and sex ratio and their correspondence interdependence, the data was put to correlation and simple regression analysis, wherein literacy was held as the independent variable and sex ratio as the dependent variable. The results of the two analyses are presented in the following table

<Table 5>

The statistics show that the regression coefficients are negative between literacy and sex ratio indicating an inverse relationship between the two and hinting that added literacy leads to a decline in sex ratio. The same has been confirmed by a p-value of 0.059 and 0.031. Moreover, the data was further put into time series analysis to study the behavior of the two variables and their future trend.

Time Series Trend Analysis

The results of the time-series analysis are depicted in graphs which reveal that sex ratio consistently records zigzag oscillations and literacy however uniform movement. This hints that sex ratio changes violently with the constant or uniform change in literacy rate. Therefore, it is vividly clear sex ratio is dictated by the dominant variable called literacy with some marginal exceptions. The red line indicating sex ratio oscillates rigorously and the blue line referring to the literacy rate moves uniformly thereby depicting their interconnection and interdependence.

<Chart 1>

<Chart 2>

Lack of Uniform Population Policy Agenda

Besides the literacy and elite status of some fraction of the masses, the state does not have clear cut population policy agenda. Understandably, there appears mess of uncoordinated efforts within the different fractions of government machinery and as a result, uniform policy agenda with respect to gender

statistics is altogether missing. The department of health on one side emphasize upon the concept of Family Planning / Nuclear Family/ Small Family/ one child policy etc while on the other hand, the demographic think tanks are crying over poor sex imbroglia. There appears a wide conflict within the population policy of the government. Long before, the government of Jammu and Kashmir consistent to the government of India, gave a wide family planning slogan “ WE TWO AND OUR TWO” and subsequently one child policy. This slogan rightfully is a predominant factor for selective births and elimination female fetus as the parents are going ahead with planned strategies to avoid female births. It is because they are left with limited probabilities for having male baby therefore, they avoid every risk of not having the female baby.

Availability Advanced Medical Care

Poor sex ratio in the state of Jammu and Kashmir is predominantly attributed to female feticide through ultrasound prenatal sex determination. Here the million dollar question is How accurate is the sex determination of a fetus? Is it necessary for a female to undergo for ultrasound during her pregnancy? Can a sonologist find exactly the sex of fetus? The available research literature on the subject has clearly state that sex of the fetus cannot be determined exactly. Khuroo (2011) states that it has been repeatedly stressed in the literature by well done studies that determination of prenatal sex through ultrasound is subject to many variables and can be grossly fallacious. Determination of prenatal sex is dependent upon the equipment quality and type of ultrasound probes, age of pregnancy and of course expertise of the operator. Inappropriate fetal position, excess amount of amniotic fluid and increased thickness of the abdominal wall of the mother can grossly adversely affect prenatal sex determination. Many the genital tubercle of female times if prominent can look like a male organ and vice versa. Sometimes umbilical cord in a female fetus may resemble male organ and give fallacious results Thus chance of making a correct prenatal sex determination at 11 weeks of pregnancy is around 50 percent subject to availability of high quality ultrasound machine and well experienced sonologist is doing a careful examination. Despite of the fact, sex determination of fetus can never reach 100 percent. Therefore a true sex of a baby can be determined only at birth.

Socio Economic Bottlenecks

Even in the twenty first century women is looked down as inferior specie due to prevent socio cultural and economic factors. The violence against the women is an order of the day. She does not receive adequate safety equal to men both in and outside the home. She is chased for malicious activity, knotted in marriage for dowry and viewed as an obedient servant for family. We as enlightened society yet have not accepted her a vital part of our system equal to men. These odds attached to female in all time force parents to proceed for selected births and abort a female fetus. According to one-survey Jammu and Kashmir ranks at second in Indian union as far as violence against the women is concerned. Moreover, the reduction of human values, deprecation of family norms, rising cost of living, diminishing role of socio cultural institutions etc. motivate parents to discourage female fetus.

V. SUGGESTIONS

In the backdrop of the above discussion, the following suggestions are made:

- The government of state Jammu and Kashmir should draw a comprehensive population agenda or policy which should cover all areas and aspects falling under the domain of gender statistics.
- The government should frame strict laws to tape the violence against the women so that her position in the society is elevated.
- The government should empower women by giving her due recognition and role in all aspects of life.
- The government should educate the people in general and women in particular through public media that sex determination of fetus through ultrasound yet not is an exact means to find the true sex of baby.
- The government should work hard to bring more and more females in the fold of education so that they improve their own lot and the lot of their family.
- The society should accept girl child as a blessing than a curse. People should reverse their attitude and mindset towards the girls.
- The social evils like dowry should be banned by the government. We as a society should learn to perform zero dowry marriages.

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List of Tables

Table: 1 Sex Ratio at all India Level

Year	Sex Ratio	Year	Sex Ratio
1901	927	1971	930
1911	964	1981	934
1921	955	1991	927
1931	950	2001	933
1941	945	2011	944
1951	946	2021	1020
1961	941		

Source: DEPS, UT, J &K

Table No : 2 Sex Ratio of the Child and Overall population, India, 1951-2021

Year	1951	1961	1971	1981	1991	2001	2011	2021
Sex Ratio	100	102	104	106	108	110	112	108

Source: DEPS, UT, J &K

Table No: 3 State Wise Sex Ratio

Sr. No.	State	Sex Ratio			
		1991	2001	2011	2021
1	Jammu and Kashmir	927	892	883	883
2	Himeachal Pradesh	896	900	974	974
3	Punjab	882	874	893	893
4	Chandigarh	790	773	810	818
5	Uttranchal	936	964	963	963
6	Harayana	865	861	877	877
7	Delhi	872	821	866	866
	Rajastan	910	922	926	926
9	Utterpradesh	876	898	908	908
10	Bihar	907	921	916	916
11	Skim	878	875	889	889
12	Andrapradesh	859	905	920	920
13	Nagaland	886	909	931	931
14	Manipur	958	978	987	987
15	Mizoram	921	938	975	975
16	Tripura	945	950	961	961
17	Megalay	955	975	986	986
1	Assam	923	932	954	954
19	West bangal	917	934	947	947
20	Jarkhand	922	941	978	978
21	Orisa	971	972	991	978
22	Chhatisgrah	985	990	930	991
23	M.P	912	920	918	930
24	Gujrat	934	921	618	918
25	Daman & Dev	969	709	775	618
26	Dada and Nagar Haveli	952	811	812	775
27	Maharashtra	934	922	992	925
2	Andrapradesh	972	978	968	992
29	Karnataka	960	964	968	968
30	Goa	967	960	946	968

Sr. No.	State	Sex Ratio			
		1991	2001	2011	2021
31	Lakshdeep	943	947	1084	946
32	Kerala	1036	1050	995	995
33	Tamil Nadu	974	1001	1038	995
34	Andaman Nicobar	818	846	878	878
Overall	India	927	933	940	1020

Source: DEPS, UT, J &K

Table No: 4 Correlation - Literacy and Sex Ratio in Rural and Urban Population

Sr. No	District	Sex Ratio		Literacy		Overall in 2001		Overall in 2011	
		Rural	Urban	Rural	Urban	Sex Ratio	Literacy	Sex Ratio	Literacy
1	Anantnag	936	842	43.70	62.60	922	46.50	927	62.69
2	Pulwama	952	883	47.90	63.40	945	49.60	912	63.48
3	Srinagar	913	835	38.70	65.10	851	59.80	900	69.41
4	Budgam	940	854	40.20	60.30	930	42.50	894	56.08
5	Baramullah	912	839	42.30	60.30	903	45.50	885	64.43
6	Kupwara	916	688	42.40	62.80	906	43.20	835	64.51
7	Leh	904	611	59.90	81.80	823	65.30	690	77.20
8	Kargil	861	559	58.80	80.80	837	60.80	810	71.34
9	Jammu	902	828	71.70	83.50	868	77.00	880	83.45
10	Udhampur	897	684	49.20	85.40	860	55.20	870	68.49
11	Doda	918	727	61.70	89.40	903	64.00	919	64.68
12	Kathua	912	835	63.10	80.01	901	65.60	890	73.09
13	Rajori	890	736	55.80	85.40	878	58.00	860	68.17
14	Poonch	932	745	62.50	93.50	919	65.00	893	66.74
15	*kulgam							951	59.23
16	*Bandipora							889	56.28
17	*Samba							886	81.41
18	*Reasi							890	58.15
19	*Ganderbal							874	58.04
20	*Ramban							902	54.27
21	*Shopiyan							951	60.76
22	*Kishtiwari							920	56.20

Source: DEPS, UT, J &K

*These district were created in August 2019, as such no exclusive data is available about them prior to their existence.

Table: 5Regression and Correlation Analysis of Literacy and Sex Ratio

Sex-ratio 2001 & 2011	Co-efficient	Std Error Coefficient	t	P> [t]	Correlation
Literacy 2001	-1.840443	0.8812169	-2.09	0.059	0.516 [0.363 and 0.5034 for rural and urban areas]
Constant	999.9052	50.9858	19.49	0.000	
Literacy 2011	-3.037091	1.308765	-2.32	0.031	
Constant	1081.468	86.12685	12.56	0.000	

List of Charts

Chart: 1 Sex-Literacy Graph: 2001

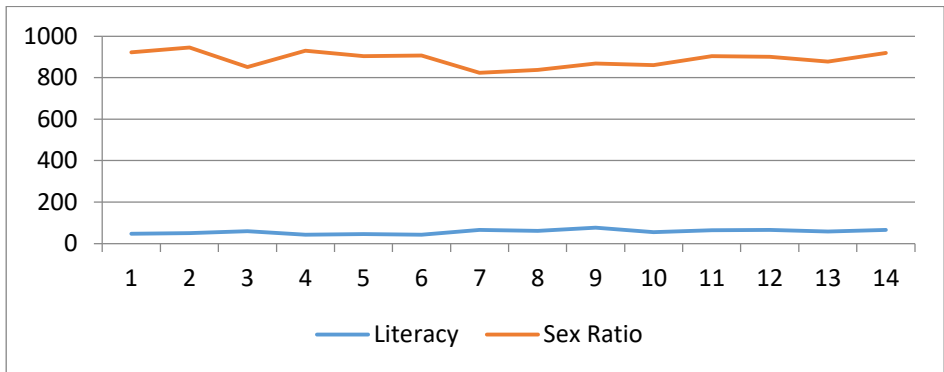
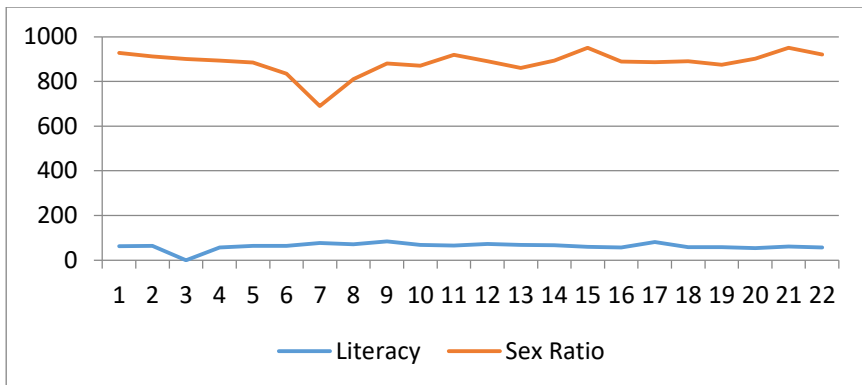


Chart: 2Sex-Literacy Graph: 2011



Author Profile

Dr. Mehraj-Ud-Din Shah is holding the charge of Dean Students Welfare of the University. He is an Associate Professor Department of Commerce having passed his MBA, M.Com (Gold Medalist), M.A. Economic, PGDRD, M.Phil and Ph.D. The area of his specialization is Strategic Management. He has twenty three year of teaching experience at undergraduate and post graduate level. At present Dr. Mehraj teaches Human Resource Development, Research Methodology and operations Management at post graduate level. Dr.Shah is a seasoned researcher and has more than thirty research publications at his credit in National and International journals. The thrust area of his research is Business Education, Quality of work life and total quality Management. Dr. Shah has also completed a major research project which was sponsored and fully funded by the University Grants Commission (UGC), New Delhi and participated in fifty regional, National and International Conferences and twenty workshops at state and national level. Dr. Shah has authored two books one Financial Accounting and the other Quality of Work Life in Higher Education. Dr. Shah is a visiting faculty to some prominent educational institutions.

