Emerging Trends in Sex Composition in Gujarat: Its Causes and Consequences

Manoj Lodha
Associate Professor
Department of Media Studies
Haridev Joshi University of Journalism & Mass Communication
Jaipur - 302 004, Rajasthan, India
Email: themanojlodha@gmail.com

Abstract

Sex composition of the human population is one of the basic demographic characteristics, which is extremely vital for any meaningful demographic analysis. Indian Census has the tradition of bringing out disaggregated information by sex on various aspects of population. The first and foremost is the simple count of males and females. Changes in sex composition largely reflect the underlying socio-economic and cultural patterns of a society in different ways. Sex ratio defined here as the number of females per 1000 males in the population, is an important social indicator to measure the extent of prevailing equity between males and females in a society at a given point of time.

The sex ratio affects the social and economic conditions in a variety of ways. The marital status and marriage ability, the strength of man-power, availability of different types of labour force, the death rate and vital statistics, the school going population, the extent of employment of women outside the home, the status of women in the community and the many other social conditions are more or less directly related to the sex ratio of population.

The sex ratio of Indian population has always been a topical interest for the demographers, social scientists, women's groups, research scholars and various planners and policy makers. This paper is an attempt to study the ratio percentage of female population in Gujarat over the male population and also have studied basic reasons and consequences of declining sex-ratio in India and find out the remedial measures to tackle this problem.

Key Words

Demography, Sex Ratio, Gujarat.

Citation: Lodha, M. (2013). Emerging Trends in Sex Composition in Gujarat: Its Causes and Consequences. *Ganpat University Journal of Applied Research In Social Sciences & Humanities, 2* (1&2), 51-61.

Introduction

India is the world's largest democratic country and was one of the first country to the grant women right-to-vote in 1928. The Indian Constitution is firmly grounded in the principles of liberty, fraternity, equality and justice. Its preamble promises all of its people social, economic and political justice as well as liberty of thought, expression, belief, faith and worship. It affirms equality before the law and prohibits discrimination on the ground of religion, race, caste, sex or place of birth. India is also a land where ancient sculpture reviewed women as living symbol of mother goddess. Yet unfortunately, these same traditions denied women on many basic rights, such as the right to perform the final rites of their parents. In spite of the rapid modernisation experienced by some segments of Indian society, general social attitude toward women have not kept pace with the country's economic and political development (International Foundation of Electrol System 2010). Sex composition of the human population is one of the basic demographic characteristics, which is extremely vital for any meaningful demographic analysis. Indian census has the tradition of bringing out disaggregated information by sex on various aspects of population. Changes in sex composition largely reflect the underlying socio – economic and cultural patterns of a society in different ways. Sex ratio is defined here as the number of females per 1000 males in the population.

Sex ratio is an important social indicator to measure the extent of the prevailing equity between males and females in a society at a given point of time. India is one of the few countries in the world where males outnumber females. However, the high incidence of induced abortions and sharp decline in the child sex ratio in the last decade clearly proves the practice of female foeticide. The table 1 presents the sex ratio of the ten most populous countries in the world during 2001 and 2011.

Table 1: Sex Ratio of Selected Countries (2001 - 2011)

Sr.	Country	2001	2011
1	China	944	926
2	India	933	940
3	U.S.A.	1029	1025
4	Indonesia	1004	988
5	Brazil	1025	1042
6	Pakisthan	938	943
7	Russian Fed.	1140	1167
8	Bangladesh	958	978
9	Japan	1041	1055
10	Nigeria	1016	987
	World	**986**	**984**

Source: United Nations, Department of Economic and Social Affairs, Population Division (2001, 2011).

The table 1 reflects that in the year 2011, there are 984 females against 1000 males in the world. As it is evident from the table 1 that females outnumber males in USA, Russian Federation, Japan and Brazil. In the other six countries the balance is towards the males. When compared to the previous decade China, Indonesia, Nigeria and USA have shown a decline in the sex ratio in the present decade. The decline has been particularly sharp in Nigeria and Indonesia. The sex ratio in USA, Russian Federation and Japan has always remained above unity despite minor variations.

Review of Literature

Sex ratio is a very significant attribute of population. Apart from its impact on fertility, it also determines the socio – economic pulse of people. Banerjee (1977) studied sex ratio and its correlates in the tribal district of Singhbum in South Bihar. The sex ratio in the area has been strongly influenced by pattern of migration. It was also noticed that the gradual decline in sex ratio is also attributed to higher female mortality. Ayyar and Srivastava (1978) observed that sex ratio was inversely correlated with size of urban centres and also with proportion of scheduled castes. Chandana and Sidhu (1979) focus primarily on determinants of sex ratio i.e. sex ratio at birth, male – female differential in mortality and migration besides, factors like wars, famines and status of women also make notable impact on sex ratio. Pendnekar and Sita (1980) analysed spatial patterns of sex ratio in South Kokan (Maharashtra) during 1951 – 71. Singh (1980) analysed population growth, sex ratio and age structure of five cities of West Bengal. Siddiqui (1982) made a study of regional aspects of sex ratio in the state. Mishra and Navaneethan (1991) studied decline in sex ratio: an alternative explanation revisited. Raju and Premi (1992) studied decline in sex ratio alternative explanation re – examined. Prasad (1994) examined a study of the declining sex ratio in Andra Pradesh. Srinivasan (1994) analysed sex ratio what they hide and what they reveals. Premi (2001) studied the missing girl child. James (2004) examined a note on the sex ratio from 2001 census result in Andhra Pradesh. Kumari and Rajyam (2004) analysed census 2001: a critical analysis of sex ratio in India. These studies on various aspects of sex ratio explicitly explicated the need to make investigations thoroughly to undersand in a better way.

The present study will focused on the trends in sex ratio of Gujarat and also will see the relationship with other demographic variables.

Objectives of the Study

- To study sex ratio at district level of Gujarat state,
- To study the relationship between sex ratio and demographic variables.
- To analyze the causes of declining sex ratio and its impact on society.
- To suggest the remedial measures to raise the sex ratio in Gujarat.

Methods and Materials

Population enumeration in terms of gender composition is a key indicator to monitor the development pulse of a country. In developing countries such as India, sex ratio is generally skewed in favour of the males. The prevailing patriarchal society creates a gender imbalance by viewing the male as an asset and the female as a liability for the family. The comparison of Gujarat with country is given in the Table 2.

Table 2: Comparison of Sex Ratio among Gujarat and India (1951-2011)

Sr. No.	Census Year	Gujarat		India	
		Sex Ratio	% Decadal Change	Sex Ratio	% Decadal Change
1	1951	952	-	946	-
2	1961	940	-1.26	941	-0.53
3	1971	934	-0.64	930	-1.17
4	1981	942	0.85	934	0.43
5	1991	934	-0.85	927	-0.75
6	2001	920	-1.50	933	0.65
7	2011	918	-0.22	940	0.75

Source: Census of India (2011)

From the Table 2, it can be seen that number of females per 1000 males for all age groups was 940 in 1961 in Gujarat which is less by one than corresponding sex ratio (941) of India. The sex ratio of 934, 942 and 934 in Gujarat respectively for the years 1971, 1981 and 1991 is considerably higher than corresponding ratio of India i.e. 930, 934 and 937 respectively. The sex ratio of Gujarat state for the year 2011 is 918 which is considerably lower than that of India i.e. 940. To examine this ratio, the child sex ratio is required to be studied. The child sex ratio of Gujarat with comparison to India is given in Table 3.

Table 3: Comparison of Child Sex Ratio among Gujarat and India (1961-2001)

Sr. No.	Census Year	Gujarat	India
1	1961	971	962
2	1971	969	979
3	1981	947	962
4	1991	928	945
5	2001	878	927

Source: Census of India (2001)

From the Table 3, it can be seen that child sex ratio of Gujarat for each decade of 1971, 1981 and 2001 is considerably lower than that of India. This fact implies that in Gujarat

particularly during last four decades there must be an expectation of male child stronger in comparison of that of female child among married couples. Although such expectations are differ according to social customs and economic conditions in rural and urban areas. The relationship between child sex ratio and literacy rate is shown in the Table 4.

Table 4: Relationship between Child Sex Ratio and Literacy Rate by Residence

Sr.	Census Year	Child Sex Ratio			Literacy Rate		
		Rural	Urban	Total	Rural	Urban	Total
1	1961	978	948	971	24.09	48.77	30.45
2	1971	963	950	969	28.33	54.90	35.78
3	1981	953	933	947	36.20	60.31	43.70
4	1991	937	909	928	53.09	76.59	61.29
5	2001	906	827	878	61.29	81.24	69.14

Source: Census of India (2001)

It is proved from the table 4 that sex ratio in urban area is considerably lower than that of rural area during last half decade in Gujarat, while literacy rate is higher considerably in urban area than that of rural area during each year. Therefore it transpires that more the literacy rate in the area there is more expectation of male child in that area. Thus there is negative correlation between literacy rate and child sex ratio.

Analysis of Sex ratio at District Level

A study of sex composition is very helpful in determining the population growth, economic development and proportion of the labour force in the state. The Table 5 examines the sex ratio at district level. The table 5 states the changes in sex ratio of the districts of Gujarat for 2001 and 2011. A declining trend in the sex ratio which is unfavourable for future growth of Gujarat. In 2001 five districts – Gandhinagar (913), Ahemdabad (892), Anand (910), Vadodara (919) and Surat (810) shows the sex ratio lower than the state average of 920, where as in 2011 only three districts Kutch (907), Ahemdabad (903) and Surat (788) shows the sex ratio lower than the state average of 918. But still it is declining.

In terms of overall sex ratio in 2001, it is observed that the top five districts in the state, Tapi (996) is at the first position followed by Amreli (987), The Dangs (987), Dohad (985) and the fifth position is occupied by Navsari (955) while in 2011 The dangs (1007) is in the first position followed by Tapi (1004), Dohad (986), Amreli (964) and the fifth position occupied by Navsari (961).

Table 5: District Wise Ranking and Decadal change in sex Ratio (2001 - 2011)

Sr.	Districts	2001		2011		% Decadal Variation
		Sex Ratio	Rank	Sex Ratio	Rank	
	Gujarat	**920**		**918**		**-0.22**
1	Kutch	942	10	907	24	-3.72
2	Banaskantha	930	15	936	13	0.65
3	Patan	932	14	935	14	0.32
4	Mahesana	927	17	925	19	-0.22
5	Sabarkantha	947	8	950	8	0.32
6	Gandhinagar	913	23	920	23	0.77
7	Ahmadabad	892	25	903	25	1.23
8	Surendranagar	924	18	929	17	0.54
9	Rajkot	930	15	924	20.5	-0.65
10	Jamnagar	941	11	938	11	-0.32
11	Porbandar	946	9	947	9	0.11
12	Junagarh	955	5	952	7	-0.31
13	Amreli	987	2.5	964	4	-2.33
14	Bhavnagar	937	13	931	16	-0.64
15	Anand	910	24	921	22	1.21
16	Kheda	923	19	937	12	1.52
17	Panchmahals	938	12	945	10	0.75
18	Dohad	985	4	986	3	0.10
19	Vadodara	919	22	934	15	1.63
20	Narmada	949	7	960	6	1.16
21	Bharuch	921	20	924	20.5	0.33
22	Surat	810	26	788	26	-2.72
23	The Dangs	987	2.5	1007	1	2.03
24	Navsari	955	5	961	5	0.63
25	Valsad	920	21	926	18	0.65
26	Tapi	996	1	1004	2	0.80

Source: Census of India (2001, 2011)

Various social, economic and demographic indicators provide evidence of a gender bias as well as deep – rooted prejudice and discrimination against women and girl children. A century old Indian demographic history records that in the matter of sheer numbers, the female ratio in total population had always remained unfavourable. In this regard the census 2001 reveals that a decline in the child sex ratio for the age- group 0 – 6 years has crossed all limits and has remained alarmingly at its lowest. The issue of the survival of the girl child is a critical one and needs systematic effort in mobilizing the community. The child sex ratio for 1991 and 2001 by residence is shown in the table 6.

Table 6: District Wise Child Sex Ratio in Gujarat (2001 - 2011)

Sr.	Districts	2001		2011		% Decadal Variation
		Child Sex Ratio	Rank	Child Sex Ratio	Rank	
	Gujarat	**878**		**886**		**0.34**
1	Kutch	922	20	913	18	-0.98
2	Banaskantha	907	17	890	12	-1.87
3	Patan	865	7	884	8	2.20
4	Mahesana	801	1	845	2	5.49
5	Sabarkantha	879	9	899	16	2.28
6	Gandhinagar	816	2	847	3	3.80
7	Ahmadabad	835	3	859	5	2.87
8	Surendranagar	886	11.5	889	11	0.34
9	Rajkot	854	5	854	4	0.00
10	Jamnagar	898	14.5	898	15	0.00
11	Porbandar	898	14.5	894	13.5	-0.45
12	Junagarh	903	16	904	17	0.11
13	Amreli	892	13	879	7	-1.46
14	Bhavnagar	881	10	885	9	0.45
15	Anand	849	4	877	6	3.30
16	Kheda	876	8	887	10	1.26
17	Panchmahals	935	22	923	21	-1.28
18	Dohad	967	25	937	23.5	-3.10
19	Vadodara	886	11.5	894	13.5	0.90
20	Narmada	945	23	937	23.5	-0.85
21	Bharuch	918	19	914	19	-0.44
22	Surat	859	6	836	1	-2.68
23	The Dangs	974	26	963	26	-1.13
24	Navsari	915	18	921	20	0.66
25	Valsad	933	21	926	22	-0.75
26	Tapi	951	24	944	25	-0.74

Source: Census of India (2001, 2011)

The table 6 shows that overall child sex ratio has been increased from 878 females to 886 in the year 2011 when compared to 2001 but still it decreased in many of the districts. The maximum decreased is found in Surat with 2.68 percent and the highest increased is found in Mehasana district with 5.49 percent.

Analysis of Relationship of Sex Ratio with Other Demographic Factors

For any economy especially a developing economy population count in favour of female is necessary in view of future growth. Unfortunately analysis of sex ratio has revealed the fact that it is alarmingly decreasing despite of various policies and programmes. In the study some of the variables are weighed to find out their influence on sex ratio. The variables are: Male Literacy Rate (MLR), Female Literacy Rate (FLR), Percentage of Urban Population to Total Population (UP), Male Work Participation in Rural Area (MWPR), Male Work Participation in Urban Area (MWPU), Female Work Participation in Rural Area (FWPR), Female Work Participation in Urban Area (MWPU).The district wise analysis of various demographic variables is shown in the Table 7.

Table 7: District wise Demographic variables (2001) (in %)

Sr.	Districts	TMWR	TMWU	TFWR	TFWU	UP	MLR	FLR
1	Kutch	50.20	21.99	24.24	3.57	30.00	70.39	48.59
2	Banaskantha	54.44	6.38	38.22	0.96	11.00	66.47	34.40
3	Patan	49.28	11.84	36.29	2.59	20.16	73.63	46.33
4	Mahesana	48.57	13.28	35.40	2.74	22.32	86.21	63.69
5	Sabarkantha	53.28	6.18	39.20	1.34	10.81	80.42	52.30
6	Gandhinagar	42.56	20.83	27.55	3.92	31.57	87.35	63.65
7	Ahmadabad	16.55	64.68	8.96	9.81	80.44	87.40	70.98
8	Surendranagar	48.99	16.71	31.36	2.93	26.56	74.19	48.10
9	Rajkot	36.73	37.06	21.25	4.96	51.29	82.61	65.20
10	Jamnagar	41.82	31.25	22.94	3.99	43.91	76.25	56.18
11	Porbandar	38.45	33.13	22.74	5.68	48.69	78.36	58.42
12	Junagarh	49.51	18.80	28.79	2.90	29.06	78.74	56.43
13	Amreli	50.24	14.02	32.85	2.89	22.45	76.44	55.78
14	Bhavnagar	44.30	27.81	24.08	3.81	37.86	78.02	53.73
15	Anand	50.87	17.37	27.55	4.22	27.36	86.09	61.94
16	Kheda	52.12	11.73	33.64	2.52	19.94	85.97	56.80
17	Panchmahals	50.57	6.56	41.83	1.05	12.51	75.91	44.94
18	Dohad	47.53	4.75	46.45	1.28	9.55	58.88	31.28
19	Vadodara	39.97	29.81	25.11	5.11	45.20	80.04	60.73
20	Narmada	52.54	4.99	41.44	1.03	10.13	72.44	46.61
21	Bharuch	53.53	17.20	26.68	2.59	25.72	82.98	65.11
22	Surat	28.03	47.66	19.13	5.17	68.44	83.83	69.87
23	The Dangs	52.91	0.00	47.09	0.00	11.00	70.68	48.51
24	Navsari	47.51	17.70	30.71	4.08	27.36	82.77	68.61
25	Valsad	46.29	18.57	31.78	3.36	27.02	77.90	59.62
	Gujarat	42.57	25.54	27.96	3.93	37.36	79.66	57.80

Source: Computed from Census of India (2001)

The Table 7 shows the data related to male literacy rate (79.66), female literacy rate (57.80), percentage of urban population to total population (37.36 %), male work participation in rural and urban area (42.57 % and 25.54 %), female work participation in rural and urban area (27.96 % and .93 %) in Gujarat. It shows that female work participation is very much low in both urban and rural area in comparison to male work participation rate.

To study the relationship between sex ratio and demographic variables, correlation coefficient is calculated and the results are shown in the Table 8.

Table 8: Correlation Coefficient - Sex Ratio and Various Demographic Variables (2001)

Sr.	Variables	Correlation Coefficients
1	Male Literacy Rate	-0.539
2	Female Literacy Rate	-0.528
3	Percentage of Urban Population to Total Population	-0.635
4	Male Work Participation in Rural Area	0.575
5	Male Work Participation in Urban Area	-0.621
6	Female Work Participation in Rural Area	0.587
7	Female Work Participation in Urban Area	-0.515

The Table 8 shows the correlation coefficient between sex ratio and other variables. The analysis revealed that male literacy rate (-0.539), female literacy rate (-0.528), percentage of urban population (-0.635), male work participation in urban area (-0.621) and female work participation in urban area (-0.515) is negatively related to sex ratio. It seems the high presence of these variables results the low sex ratio and low absence of these variables results high sex ratio. The table shows that only male and female work participation in rural area is positively related to sex ratio i.e. 0.575 and 0.587 respectively.

It is amazing that despite of increasing female and male literacy the sex ratio is found less. It is mainly attributable to the fact that the sons are still preferred in educated society also.

Reasons for Declining Sex Ratio

The sex ratio gets influenced by many factors. In fact the present scenario is found to have contribution of various factors like social, economic, education and religious nature of people which also goes with technology innovation.

Sons are considered vital to continue the family lineage and often the family activities. Sons are also assured to inherit their parental properties where daughters are excluded after their marriage. Many important rituals are performed by only son in the family like rituals upon death of parents which provide them prominent role in the family and enhance their prestige. Also girls are considering girl for other house as the girl move to her husband's house once she get married. Because of this nature of society the girl take care of other family and support other family instead of his parental family which make her position less important for the family where she born. This makes a less desire for a girl child and increases the desire for want of a son.

Also having son is always considered economic development for the family. In Indian society still a big population of the country does not prefer their daughter to go for job and work. But for son there is no restriction. Dowry system makes girl marriage very expensive and opposite to this sons are considered beneficial as they bring dowry for the family which means a good financial improvement for the son family. So these demands for son promote people to go for sex selective abortion and infanticide in case fetus is a girl. This is a reason which is prevailing in the society for declination of female population.

Effects of Declining Sex-Ratio

If we cannot keep the natural balance between the number of male and female in population, the effects will be as follows:

- Too many male and few female will be seen in society.
- Daughters will demand dowry and they will choose their bridegroom.
- Insecurity for female will be increased and crimes against women will be more.
- Family system will be broken and will shake the base of the society.
- Religion and caste system will be collapse and secular state will emerge.
- In India after the year 2020 to get brides will be impossible. So 20% youths will remain unmarried.
- Lastly if there will be no mothers for procreation of human race then how the human race will remain?

Conclusion

To make improvement in gender ratio it would be more important to provide a change in the status of the woman and this need improvement in their image of being burden. A society walks on a basic idea taking the idea as a direction. Once the society has observed woman as a loss in monetary value and burden on them they would most probably try to avoid the problem. But if woman is considered worthy and asset than may be it would increase the girl demand in the society. The girl are considered less valuable as we never realize their position and importance in the society and in fact society is more over focusing on only the cost value of a woman. Women are equally important as man in the society and have an equal role to sustain this society. A change in attitude and perception is required to upgrade the situation for woman and second is to enhance and improve the condition of woman further with providing support and making example of their worthiness as equal as man. Society must break the vicious circle of poverty and female illiteracy. Free education up 12th stand for girls' should not remain only the slogan. But its implementation in reality is necessary. The government should promote more higher and technical educational facilities in the rural areas. There should be special incentives for women education. The Anti-Dowry Act should be strictly implemented. Empowerment of women should be done through employment opportunities.

References

Bardhan, P. (1982), Little girls and death in India, *Economic and Political Weekly*, 17(36), 1448 – 1450.

Census of India (2001), Primary Census Abstracts: Gujarat, Directorate of Census Operations, Gujarat.

Census of India (2011), Provisional Population Totals: Gujarat, Series 25 Gujarat, Directorate of Census Operations, Gujarat.

Census of India (2011), Provisional Population Totals, Office of the Registrar General and Census Commissioner.

Committee on Status of Women in India (1975), Towards Equality: Report of the Committee on the Status of Women in India. New Delhi, Government of India, Ministry of Education and Social Welfare, Department of Social Welfare.

National Commission for Women (2004), Pre-Birth Elimination of Females: A handbook of Guidelines. New Delhi.

Patel, V. (2004), An Update on the Declining Sex Ratio in India. Indian Journal of Medical Ethics, 2004, April-June, 12(2), pp. 46-51.

Prasad, S. (2001), Female Foeticide: A Study of Varanasi. Lucknow, Centre for Women's Studies and Development, pp. 14.

Sharma R.K., (2004), Demography And Population Problems, Altantic Publications & Distributors, New-Delhi.

United Nations, Department of Economic and Social Affairs, Population Division (2001), World Population Prospects (Mid Year Estimates, 1998).

United Nations, Department of Economic and Social Affairs, Population Division (2011), World Population Prospects (2008 Revision).