



Demographic insights into the Jat population of Haryana

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Abstract

Demography is the science of populations that seeks to understand population dynamics in light of the population structure and its socio-economic makeup. The present study was conducted to understand the demographic profile of Jat community of Haryana. The data were collected from 15 Jat dominated villages in different months of the year 2011-2013 from 1158 households comprising 7162 individuals using pretested interview schedules. The research included various parameters like sex ratio, literacy rate, occupational status, marital status, socio-economic status of the studied population. The results revealed that the Jat population has experienced decline in fertility rate in the past few years. Median age of present population comes out to be 25 years which is lesser than national population, showing that population of Haryana is a young population. The sex ratio of the presently studied population was found to be low as compared to the state and country's estimate. Almost one fourth of the population was found to be illiterate (23.87%) with a higher percentage of females (35.58%) as compared to the males (11.1%). Majority of the women participate in agriculture (31.4%) or home makers (40.82%) and almost half of the males (43.87 %) are practicing agriculture.

Keywords: Demography; sex ratio; fertility; Haryana; illiteracy.

Introduction

Siegel (2002) defined demography as the scientific study of human population and more specifically, the study of the size, geographic distribution, age-sex structure and socio-economic composition of populations and the factors that affect changes in these dimensions, namely, fertility, mortality and migration. It is used by governments, corporations and non-government organizations to learn more about a population's characteristics for various purposes, including policy development and economic market research. The age and sex composition of a population is an indicator that determines the prospective of future growth of specific age groups as well as the total population. In this context, the age structure has a significant importance in the government policy making procedures. It is also used in ecology to determine the overall age distribution of a population; an indication of the reproductive capabilities and likelihood of the continuation of our

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species. It also gives an indication of the number of economic dependents being supported in the population. Demographic trends are also important; the size of different demographic groups will change over time as a result of economic, cultural and political circumstances.(Bhende & Kanitkar,2008)

There are two methods for data collection in demographic studies. Census is a direct method that tries to systematically acquire and record demographic information. It is conducted by national government which tries to enumerate each and every person in the country.(Bhende & Kanitakar,2008) There are several factors that have reported that the dynamics of a population are affected by various factors like food availability, cultural milieu and technological advancements etc. These are different for different populations living in the same area which requires community based data generation. Therefore, anthropological studies are necessary to facilitate effective community based policy making.

Purpose

Haryana is one of the most economically developed regions of South East Asia.(<http://pib.nic.in/archieve/others/2014/aug/d2014070801.pdf>) In spite of it, gender disparities are clear due to lower female sex ratio (943 females per thousand males) and lower female literacy rate. (Census, 2011). Palwal is one of the most developing districts of the state that is characterized by modernization and rapid urbanization and it is characterized also by proximity to the national highway. In the present study an attempt is made to understand the demographic profile of Jat community of Palwal District of Haryana.

Materials and Methods

Haryana is one of the 29 states in India, situated in North India. It was a part of the larger Punjab region and was carved out of the former state of East Punjab on November 1, 1966 on the basis of linguistic basis. It stands 21st in terms of its area which is spread about 44,212 km² (Government of Haryana, 2016).It is the eighteenth largest state of India with a population of 25,353,081 inhabitants.(Census of India,2011) Palwal district of Haryana state is situated 60 kilometres from Delhi and 55 kilometres from Khair City on the Delhi-Mathura highway (NH-2). The area of the city is 22.10 square kilometre.

Palwal is located at 28.15°N 77.33°E.It has an average elevation of 195 metres. Palwal district has a population of 1, 040, 493, with a population density of 761 inhabitants per square kilometre (District census 2011).

The household survey was conducted among Jats of Haryana residing in Palwal District of Haryana. Data were collected from 15 villages of Palwal District. Trained anthropologists guided by the principal investigator constituted the field research team for the data collection. The data was collected in different months of the year 2011-2013 from 663 genealogies composed of 1158 households using pretested interview schedules. It included both closed and open-ended questions. The Household Schedule consisted questions on household identification, residence characteristics, economic status, queries related to each household member i.e. age, sex, marital status, education, occupation and relationship to the head of the household. To supplement the information collected through interviews, indirect and informal discussions were also carried out with the respondent and other members of the family. The information obtained from each respondent was also cross-checked in the field. To avoid measurement and data entry disparity, all information was taken by one anthropologist, while all data were entered in the datasheet by another.

Statistical Analysis

After incorporating and systematizing the data into Microsoft Excel 2007, further analyses were conducted using Microsoft Excel 2007. The integrity of the collected data was maintained using double entry. To ensure its validity and accuracy the data collected was cross-checked several times.

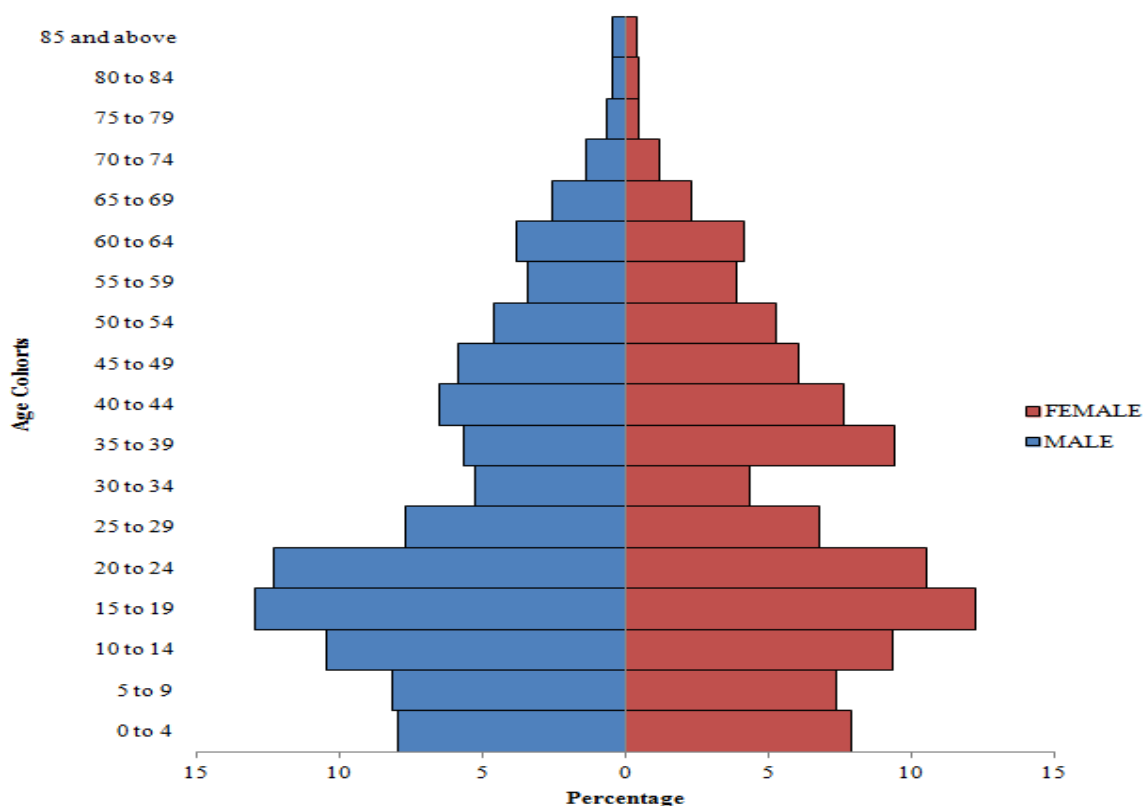
The present study was approved by the Ethical Committee, Department of Anthropology, University of Delhi. Prior to start of study, written consent was taken from all the study subjects.

Results

Table- 1: Showing the sexwise and age cohort wise distribution of the Jat population of Palwal district, Haryana

Age Group (in years)	Male		Female		Total		Age Specific Sex Ratio
	Number	% age	Number	%age	Number	% age	
0-4	306	7.96	263	7.92	569	7.94	859.48
5-9	313	8.15	246	7.41	559	7.81	785.94
10-14	401	10.44	311	9.37	712	9.94	775.56
15-19	497	12.94	408	12.29	905	12.64	820.93
20-24	472	12.29	350	10.54	822	11.48	741.53
25-29	295	7.68	226	6.81	521	7.27	766.10
30-34	203	5.28	145	4.37	348	4.86	714.29
35-39	216	5.62	312	9.40	528	7.37	1444.44
40-44	250	6.51	254	7.65	504	7.04	1016
45-49	225	5.86	201	6.05	426	5.95	893.33
50-54	177	4.61	176	5.30	353	4.93	994.35
55-59	132	3.44	130	3.92	262	3.66	984.85
60-64	146	3.80	137	4.13	283	3.95	938.36
65-69	99	2.58	77	2.32	176	2.46	777.78
70-74	53	1.38	40	1.20	93	1.30	754.72
75-79	25	0.65	16	0.48	41	0.57	640
80-84	16	0.42	15	0.45	31	0.43	937.5
85 and above	16	0.42	13	0.39	29	0.40	812.5
Total	3843	100	3320	100	7162	100	863.90

Figure 1 Depicting the population pyramid of the presently studied population, Haryana and India



Population pyramid: The population pyramid shows a growing population as it has steeper end and broad bases. This indicates that the large proportion of children and young persons and small proportion of old people in the population. This is a typical population pyramid of a developing nation. Further it is seen that the total number of males and females are lower in the age group of 0-14 years, whereas they are more in the age group of 15-24 years. In the Age cohort 30-34 there seems to be unexceptionally less number of people. From the Population pyramid it is also seen that 5.16% of the population is above the age group of 65. Males outnumbered females above the age of 65 years. One of the noteworthy features of the present study is that the number of males is more than the number of females indicating a strong gender disparity.

Sex ratio and Masculinity Proportion

Figure- 2: Depicting a comparative analysis of the sex ratio of the presently studied population in comparison to Haryana and all India estimates

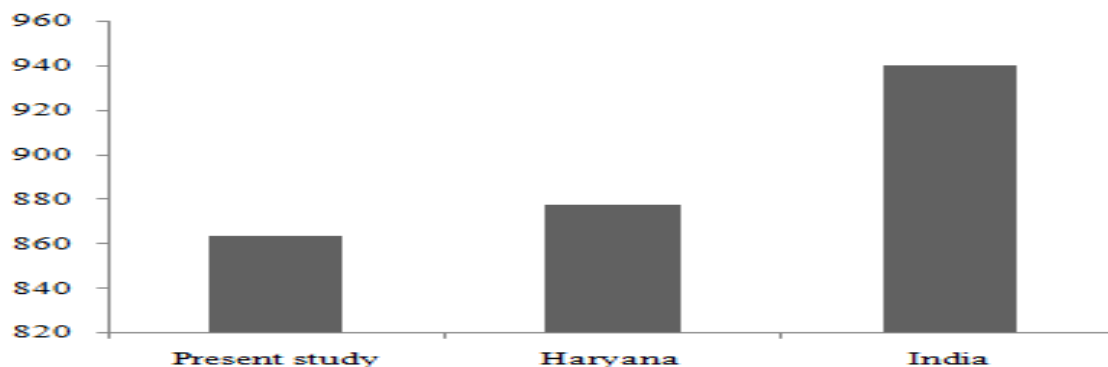


Table -2: Showing distribution of sex ratio among the *Jat* population of Haryana

0-14 years of age (pre-reproductive age group)	803.92
15-49 years of age (reproductive age group)	878.59
50 years and above (post reproductive age group)	908.27

The sex ratio among the *Jats* is found to be 863 females per thousand males. Further an age wise distribution of the sex ratio reveals that the sex ratio of the presently studied population is lower in the pre reproductive age group (803.92) and thereafter shows an increasing trend in the reproductive (878.59) and the post reproductive age groups (908.27). This is again suggestive of the gender disparity in the presently studied population. The *Jat* population has the masculinity proportion of 53.65, suggesting that the preponderance of males over the females, which is also observed in the sex ratio pattern.

In the present population the median age was found to be 25 years. The total dependency ratio among the *Jats* is 44.63, whereas the young dependency ratio (37.16) is much more than the old dependency ratio (7.47). The index of aging for the present study population is 20.11. Sexwise, males have a higher index of aging as compared to the females.

Marital status

Table: 3 Showing age and sexwise distribution of the marital Status among the *Jats* of Haryana

Marital status	No. Of persons			Percentage		
	Total	Male	Female	Male%	Female%	Total%
Unmarried	2564	1541	1023	45.56%	34.43%	40.35%
Married	3575	1778	1797	52.57%	60.48%	56.27%
Widowed	206	60	146	1.77%	4.91%	3.24%
Divorced/separated	8	3	5	0.08%	0.16%	0.12%
Total	6353	3382	2971	100%	100%	100%

The marital status among the presently studied caste group with respect to age and sex shows that 56.27% of the total population is married and among them 52.57% are males and 60.48% are females. The remaining 40.35% comprises of the unmarried category which included unmarried males and females including the divorcees (0.12%) and the widows (3.24%).

Educational Status

Figure -3 Showing literacy among both males and females

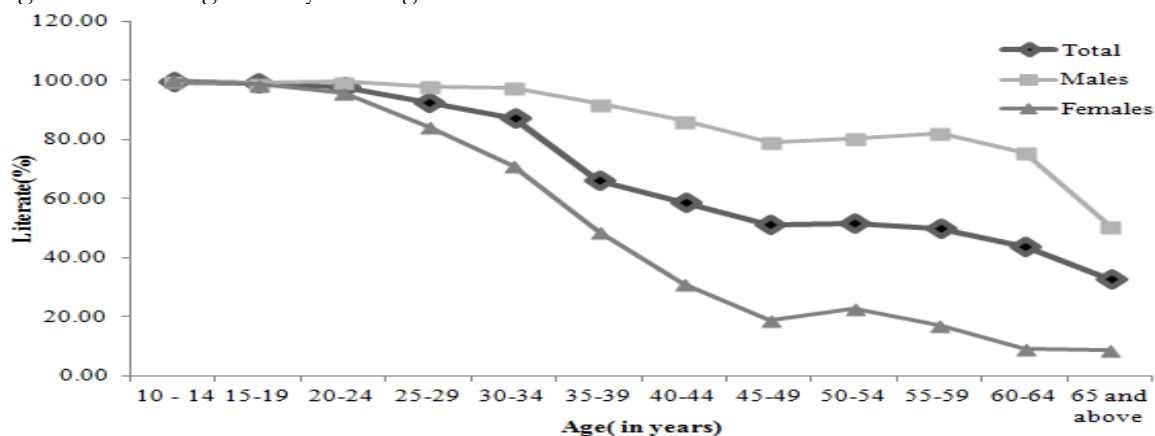


Figure 3 represents that literacy rate among both males and females are almost same upto the age of 19 years. But after the age of 20 years, difference increases. So the gap for educational attainment increases among males and females. The overall literacy rate is less among females (64.42%) than males (88.90%).

Figure-4: Showing distribution of educational status among the ever married males and females of *Jat* population of Haryana.

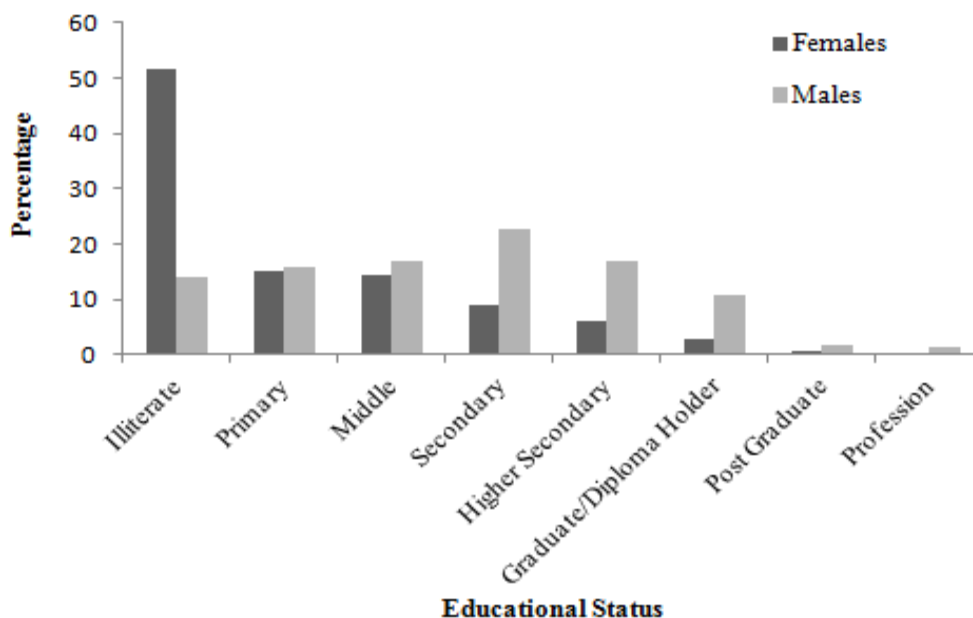


Figure 4 represents the distribution of educational status among the ever married males and females of *Jat* population of Haryana. It shows that higher %ages of females (51.67 %) are illiterate than males (13.87 %). Almost same level of primary education is attained by both males and females. After that the difference increases among both male and female. The crude literacy rate of the population is 55.45 percent. However, the sexwise distribution reveals that the crude literacy rate is higher among the males (66.38%) as compared to the females (44.52%). The literacy rate of the population of 10 years and above is found to be 76.13 %. This literacy rate is also found to be higher among the males (88.90%) as compared to the females (64.42%).

Occupational Status

Figure-5: Showing distribution of economically active males and females (aged 15-59 years) among the *Jat* population of Haryana

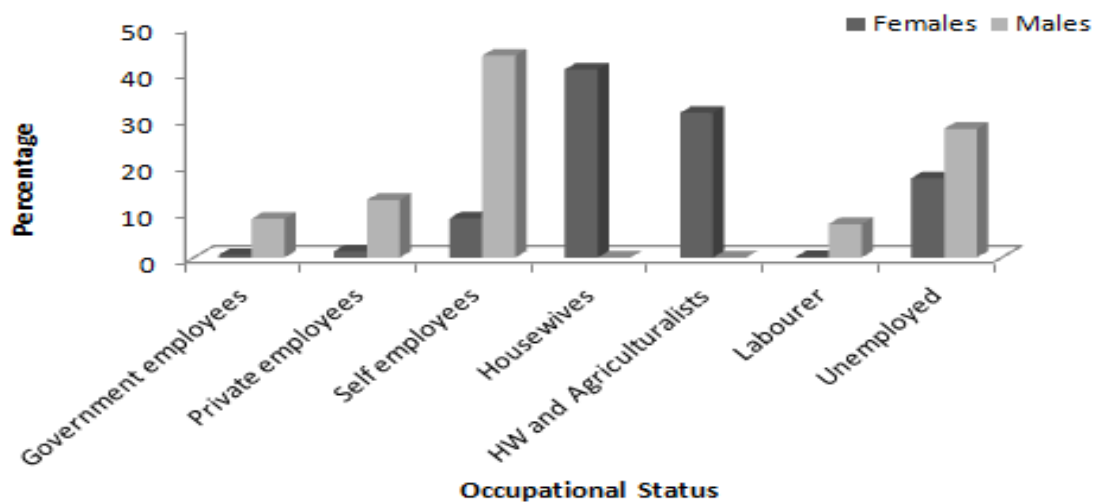


Figure 5 represent the distribution of economically active males and females among the Jats. From the table, it is observed that majority of the male population is self employed (43.87 %) that is, they are practicing agriculture, whereas the employment in government (8.41%) and private jobs (12.51%) is quite less. In contrast to this, majority of the women were either agriculturalist (31.4%) or housewives (40.82%). An important observation of the present study is that a high percentage of both males (27.94%) and females (17.21%) are jobless and depending on other family member.

In this study the crude and the general activity rates are 44.05% and 67.49%, respectively. Differentiation of the sexwise crude and general activity rate reveal that the females are more engaged in the economically active profession as compared to the males.

Economic Status

Table- 4: Showing distribution of households on the basis of Annual per capita Income among the Jat population of Haryana

Annual per capita income	Total number of household	
	Number	Percentage
Less than 10,000	273	30.98%
10001-50000	485	55.05%
50001-100000	80	9.08%
100001-200000	34	3.85%
More than 200000	9	1.02%
Total	881	
Mean annual per capita income: Rs.32984.43		

Table 4 shows the distribution of households on the basis of annual per capita income among the *Jat* population of Haryana. It shows the more than half of the population have per capita annual income between Rs 10000/- to 50000/-. Only small proportions of households have annual per capita income greater than Rs.1, 00,000/-.

The comparison of the per capita annual income of the presently studied population reveals that in spite of being one the wealthiest states in the country, the per capita annual income of the presently studied population is lower than the national standards.(Rs. 74,920/-) This might be because the presently studied population are landholders practicing agriculture so there are no fixed sources of income for them.

Discussion

The present study reveals that the Jat population is a growing population as is evident from the population pyramid. In the age of 0-10 years it is seen that there is a decline in the fertility rate as compared to the populations in the age groups of 15-24 years. This is suggestive of the effectiveness of the birth control measures (tubectomy) in the recent years. This study reveals that the overall use of birth control measures is 61.9% with a higher percentage of premenopausal females (66.5%) using the birth control measures as compared to the postmenopausal. (55.9%). So this could be attributed to the educational awareness and the recent introduction of family planning measures in the studied group as is evident by the usage of birth control measures. The study further shows that there is lesser number of individuals in the age group 30-34 years. One of the reasons for this could be migration of the population in order to seek greater job opportunities. Young people usually go out for better job opportunities so move from rural to urban centres. However, the plausibility of this is quiet less due to the urbanization that is there in this area. One of the other reasons that account for the lesser number of males and females in the age group of

30-34 years could be due to the major drought in North India especially in Haryana at the end of 1970s (Murthy et al., 2009) that might have reduced the reproductive fitness in the population. Further, it is also seen that 5.16% of the population is above the age group of 65 and above and if it is compared with Indian scenario 5.8% of the total population is 65 years and above. (CIA World Factbook 2014). Males outnumbered females above the age of 65 years. This is indicative of the non availability of the health facilities of the elderly. It also shows poor health and nutritional facilities for females causing high female mortality rate.

The median age for the presently studied population (25 years) is less than the estimated national median age (27.3 years). This illustrates that the presently studied population is at a lower of the intermediate aged populations as per Shryock and Siegel (1976). The populations whose median ages are less than 20 years of age are designated as young populations and those that are greater than 30 years are designated as aged populations.

Further, the sex ratio and the masculinity index are suggestive of possible gender disparity in the studied community. The sex ratio among the Jats (863) is less than the Haryana state (879) and (940) the all India estimates (Census India, 2011). An agewise distribution of the sex ratio reveals that the sex ratio of the presently studied population is lower in the pre reproductive age group (803.92) and thereafter shows an increasing trend in the reproductive (878.59) and the post reproductive age groups. (908.27). Further, it is observed that in the sex disparity is strongest in the pre reproductive age group. In the reproductive and the post reproductive group, although the sex ratio is slightly higher than the pre reproductive age group, but the number of females are still lesser than the number of males. As the *Jat* population is patriarchal (Singh 1994). Poor maternal care and poor health and nutritional facilities to girl child also lead to low sex ratio in younger age group. Preference for male child is very strong compelling parents to go for illegal sex determination test and aborting their fetus. (Pande et al., 2006) The introduction of the *khap panchayats* in the Haryana region demonstrate the patriarchal structure of the *Jat* society. Although the introduction of *khap panchayats* among the Jats deserves an optimistic welcome, instead of this the same has been under severe criticism as well.()

Further, it is seen that the level of illiteracy is more among the females as compared to the males. There have been several incentives provided by the government such as the *Beti Bachao, Beti Padhao* (save daughters, educate daughters) and *Swachh Vidhyalaya* (clean school) programmes, have pushed up enrolment rates in schools among girls (http://planningcommission.nic.in/plans/stateplan/sdr/sdr_haryana1909.pdf) to reduce the gender disparity in Haryana. This is evident in the educational status of the males and females in between the age group of 10-19 years, but post 19 years it is seen that the societal and cultural pressures still prevail in the community, as is evident in Figure 2. This is evident in terms of the marriage and conception patterns of the presently studied community.

The occupation status reveals that this is an agrarian community. Majority of the males are self employed and practice agriculture. Along with this, it is also seen that majority of the women are home-makers as well as practice agriculture. This is in concordance with the study by Channa (1997) that had also reported similar observations. One of the major features of the present study is that in spite of the prevailing gender disparity the economy of the state of Haryana is still not better than the country's economy. Mean annual per capita annual income of Jat population is Rs.32984.43 which is still lesser than the nationwide average which is about Rs.74, 000 (Rao,

2015). This could be primarily because of the fact that anthropological meaning of 'wealth' in this rural community is different from that reported in a general urban sense. This is defined in terms of the immovable properties like landholdings, possession of cattle etc. that were not documented in the present study.

Conclusion

The population pyramid of the presently studied population is typical of a developing nation that is characterized by fertility decline in the recent years. The study reveals that there is gender disparity as it is manifested by the sex ratio, masculinity proportion and the index of aging. The prevailing gender disparity in the community is further manifested in the educational and occupational trends of the population. It is observed that in spite of the introduction of various government initiatives the proportion of literacy among the females is lower as compared to the males. This is further manifested in the occupational status wherein greater number of males (about 20%) is employed in government and private jobs as compared to the females (about 2%). Marital status reveals that the incidence of divorce or separation is very rare in this community. It is further observed that in spite of being one of the wealthiest states in India, the per capita annual income of the population is lower than the national standards.

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