

**S
T
U
D
I
E
S**

No. 14-01

Gender Balance in Gujarat
An analysis of Primary Census
Abstract 2011

Aalok Ranjan Chaurasia

'Shyam' Institute

This page is intentionally left blank

Gender Balance in Gujarat

*An Analysis of
Primary Census Abstract
2011*

Aalok Ranjan Chaurasia

December 2014

Introduction

Gender-based analysis of the society and the economy may be defined as a process that analyses the differential impact of different development programmes and activities on women and men. Gender-based analysis facilitates appreciation and recognition of the nature of relationships between women and men in the society and of their different social realities, life expectations and economic circumstances in development planning and programming. The importance of such analyses is increasingly been recognised these days as it provides the empirical evidence that development policies and programmes affect women and men differentially because of a host of social, cultural, economic and even environmental factors. In the absence of gender-based analysis, the potentially differential effects of development policies and programmes on women and men may be masked or obscured. On the other hand, when gender is explicitly considered in development policy, planning and programming, these effects are revealed, and previously hidden implications come to light thereby making development planning and programming sensitive to women's specific development and welfare needs. Integrating gender-based analysis with development planning and programming therefore ensures that development policies and programmes are inclusive and consistent for informed policy-making and good governance.

Another rationale for gender-based analysis of social and economic development scenario is based on the standpoint that development policies and programmes cannot be separated from the social and cultural context, and that social and cultural issues are an integral part of economic issues. Since gender is socially and culturally contextualised, gender-based analysis of social and economic situation is an integral part of any development policy analysis.

The above considerations constitute the rationale for the present analysis which attempts to analyse the gender balance in Gujarat and in its constituent district. Despite continued emphasis on incorporating gender related issues and concerns in development policy formulation and development planning and programming, there has hardly been any attempt to analyse the gender balance in different sub-groups of the population to explore up to what extent, different women's empowerment programmes and initiatives have really affected the gender balance. All gender-based analyses, either at the state level or at the district level have largely been confined to total population or population 0-6 years of age. Although, findings based on state and district level analyses of the gender balance in the population have been incorporated in the development planning and programming processes, yet, very little is currently known how policies and programmes directed towards the empowerment of women in the family and the society have really contributed to improving the gender balance in different sub-groups of the population. The present report attempts to measure and analyse the gender balance in different sub-groups of the population in Gujarat and in its constituent districts in an effort to examine the dynamics of gender in the state in a comprehensive manner.

Data

The analysis is based on the primary census abstract of the 2011 population census. The primary census abstract provides data on key dimensions of the society and the economy at the village level from which selected indicators reflecting the status of women in the village can be estimated. The primary census abstract, it may be pointed out, is the only source of data available for analysing social and economic development situation at the village level in India including the status of the women in the village.

The primary census abstract of the 2011 population census provides data related to selected aspects of population and development at the village level. In the present report, the data available through the primary census abstract has been used to estimate a selected set of indicators reflecting the status of women in the villages of Gujarat. The analysis presented here may facilitate gender sensitisation of village level development planning and programming. Such a sensitisation may contribute to addressing women's related development issues in a more effective manner.

According to the 2011 population census, total rural population in Gujarat was 34.7 million - 16.9 million females and 17.8 million males. The rural population of the state was distributed across 17725 villages of varying population size. Village Dhari in district Mahesana was the largest village in the state with a population of 30352 according to the 2011 population census. Besides Dhari, there were 165 villages in the state which had a population of more than 10000 at the 2011 population census. On the other hand, there were 500 villages in the state where there was either no inhabitant or the total number of households in the village was less than 10. These villages have not been included in the present analysis.

The primary census abstract of the 2011 population census provides the following data separately for females and males for each of the 17725 villages of the state with at least 10 household:

1. Total number of households
2. Total population
3. Total population below 7 years of age
4. Total Scheduled Castes population
5. Total Scheduled Tribes population
6. Total number of literates and illiterates
7. Total number of workers, main workers and marginal workers by four work categories: I) cultivator; ii) agricultural labour; iii) household industry worker; and iv) other workers. The marginal workers have been further classified into two categories - individuals who worked for 3-6 months during the year prior to the census and marginal workers who worked for less than 3 months during this period. All individuals who worked for at least 6 months during the year preceding the census are classified as main workers.
8. Total non-workers.

Measures of Gender Balance

The most commonly use measure of the gender balance in the population is the ratio of females to males or the ratio of males to females in a population, popularly known as the sex ratio. When sex ratio is 1 the number of females and the name of males in the population are the same. If the sex ratio is measured as the ratio of females to males, then, a sex ratio higher than 1 means that there are more females than males. If the sex ratio is measured as the ratio of males to females then, a sex ratio higher than 1 means that there are more males than females. More females than males in a population is argued to reflect relatively a better position of females than males in the society whereas more males than females is argued to reflect discrimination against females in the society.

One problem in using the sex ratio as an indicator of gender balance is that it is not bounded from above. If the sex ratio is measured in terms of the ratio of females to males, then it will be indeterminate if there is no male in the population. On the other hand, if the sex ratio is measured in terms of the ratio of males to females, then it will be indeterminate if there is no female in the population. It is also obvious that the ratio-based measures of gender balance can take very low and very high. When the population under consideration is large such as the population of a district or population of a state, such situation may not arise as there will always be both females and females in the population but when the analysis is carried out at the grass roots level, there may be a possibility that the sex ratio cannot be calculated.

Other measures used to analyse the gender balance in the population are proportionate share of females in the population and the proportionate share of males in the population. An advantage of these measures is that they are bounded by zero from below and by 1 from above. It is obvious that when there is no female in the population, the proportionate share of females is 0. Similarly, when all members of a population are females, the proportionate share of females is 1. The same argument can be given for the proportionate share of males in the population.

In the present paper, we use the proportionate share of females in the population (PF) as the indicator of gender balance. PF is defined as

$$PF = F/(M+F)$$

where F is the total number of female and M is the total number of males in the population. When $PF=0.5$, number of females and the number of males in the population are the same. It is straightforward to show that

$$PF = SR/(1+SR)$$

or

$$SR = PF/(1-PF)$$

where SR is the sex ratio measured in terms of the ratio of females to males. It is also clear that when $PF=0.50$, $SR=1$.

Gender Balance in Gujarat

The primary census abstract of the 2011 population census gives enumerated population for each village in the rural areas and each municipal ward in the urban areas of the state along with the number of females and the number of males in each village/municipal ward. In addition, the primary census abstract also provides the number of persons, the number of females and the number of males in the following sub-groups of the population in each village/municipal ward which permits estimating the proportionate share of females (PF) in different population sub-groups within the same village/municipal ward:

1. Total population (*ppf*)
 - 1.1 Population 0-6 years of age (*pcf*)
 - 1.2 Population more than 6 years of age (*psf*)
2. Scheduled Castes (*psc*)
3. Scheduled Tribes (*pst*)
4. Literate population (*plf*)
5. Illiterate population (*pif*)
6. Workers (*pwf*)
 - 6.1 Cultivators (*pcf*)
 - 6.2 Agricultural labourers (*paf*)
 - 6.3 Household industry workers (*phf*)
 - 6.4 Other workers (*pof*)
7. Main workers (*pmwf*)
 - 7.1 Main cultivators (*pmcf*)
 - 7.2 Main agricultural labourers (*pmaf*)
 - 7.3 Main household industry workers (*pmhf*)
 - 7.4 Main other workers (*pmof*)
8. Marginal workers (*pgwf*)
 - 8.1 Marginal cultivators (*pgcf*)
 - 8.2 Marginal agricultural labourers (*pgaf*)
 - 8.3 Marginal household industry workers (*pghf*)
 - 8.4 Marginal other workers (*pgof*)
9. Marginal workers who worked for 3-6 months (*pg1wf*)
 - 9.1 Marginal cultivators who worked for 3-6 months (*pg1cf*)
 - 9.2 Marginal agricultural labourers who worked for 3-6 months (*pg1af*)
 - 9.3 Marginal household industry workers who worked for 3-6 months (*pg1hf*)
 - 9.4 Marginal other workers who worked for 3-6 months (*pg1of*)
10. Marginal workers who worked for <3 months (*pg2wf*)
 - 10.1 Marginal cultivators who worked for <3 months (*pg2cf*)
 - 10.2 Marginal agricultural labourers who worked for <3 months (*pg2af*)
 - 10.3 Marginal household industry workers who worked for <3 months (*pg2hf*)
 - 10.4 Marginal other workers who worked for <3 months (*pg2of*)
11. Non-workers (*pnwf*)

In the present paper, the proportionate share of females (PF) has been calculated for each village of the state for the total population and for the following sub-groups of the population:

Population 0-6 years of age

Population aged 7 years and above

Scheduled Castes

Scheduled Tribes

Literates

Workers

Main workers

 Cultivators

 Agricultural labourers

 Household industry workers

 Other workers

Marginal workers who worked for 3-6 months during the year prior to the census

 Cultivators

 Agricultural labourers

 Household industry workers

 Other workers

Marginal workers who worked for 0-3 months during the year prior to the census

 Cultivators

 Agricultural labourers

 Household industry workers

 Other workers

Notice that the population sub-group 'workers' comprises of three sub-groups - main workers, marginal workers with 3-6 months of work and marginal workers with 0-3 months of work.

An examination of the primary census abstract of the 2011 population census, however, reveals that all the 21 sub-groups of the population listed above were not present in all villages of the state at the time of the 2011 population census. In fact, only two sub-groups of the population - 1) population aged 7 years and above; and 2) workers were present in all the 17725 villages of the state that have been covered in the present analysis. There were many villages in the state, where the population of other population sub-groups was enumerated to be zero at the time of the 2011 population census (Table 1). There was even one village in the state where there was no population in the age group 0-6 years at the 2011 population census. Similarly, in 30 per cent of the villages, there was no Scheduled Castes Population whereas in almost 38 per cent villages, there was no Scheduled Tribes population at the time of 2011 population. Similarly, in a large proportion of villages, there was no household industry population - either main or marginal. This reflects that there was virtually no household level industrial activity in these villages.

Table 1
Number of villages where different population sub-groups were present at the time of
2011 population census

Population sub-group	Number of villages for which gender balance indicator could be calculated	Proportion of total villages in the state (Per cent)
Population	17225	100.0
Population 0-6 years	17724	100.0
Population 7 years and above	17725	100.0
Scheduled Castes	12406	70.0
Scheduled Tribes	10980	61.9
Literates	17718	100.0
Workers	17725	100.0
Main workers	17721	100.0
Main cultivators	17525	98.9
Main agricultural labourers	17323	97.7
Household industry workers	10289	58.0
Other main workers	17454	98.5
Marginal (3-6) workers	16984	95.8
Cultivators	14055	79.3
Agricultural labourers	15759	88.9
Household industry workers	6167	34.8
Other workers	14804	83.5
Marginal (0-3) workers	12295	69.4
Cultivators	6811	38.4
Agricultural labourers	9791	55.2
Household industry workers	2265	12.8
Other workers	7702	43.5

Source: Author's calculations

Table 2 presents the proportionate share of females in different population sub-groups of the state along with the associated sex ratio - females per 1000 males which that the 2011 population census reveals that the proportionate share of females in different sub-groups of the population of the state varies widely across. For the rural population, the proportionate share of females is estimated to be 0.48 per cent or around 919 females for every 1000 males. In the rural population, the proportionate share of females has been estimated to be close to 0.49 but less than 47 per cent of the urban population is found to be females. In other words, there were 949 females for every 1000 males in the rural population of the state compared to only 880 females per 1000 males in the urban population. Obviously, the gender imbalance in the urban areas of the state is more sharp than that in the rural population.

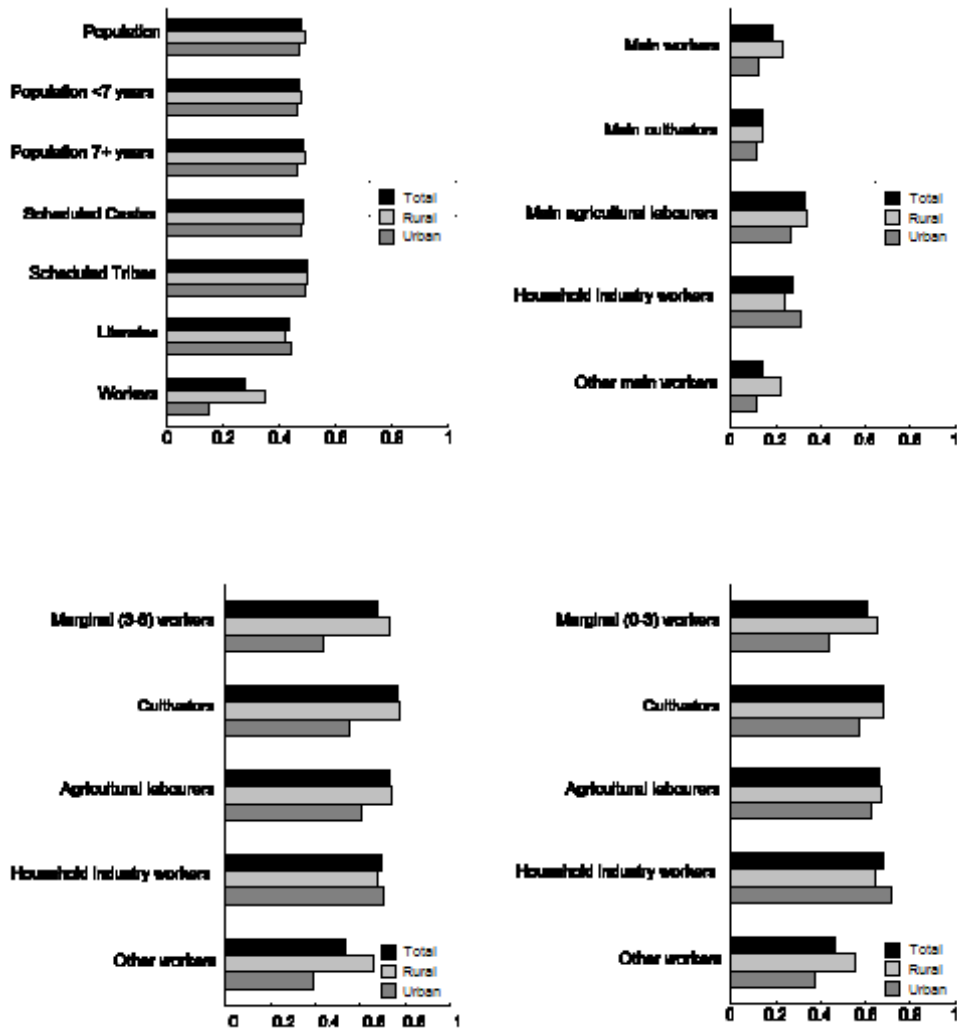
Table 2
Proportionate share of females in different population sub-groups in Gujarat, 2011

Population sub-group	Proportionate share of females			Sex ratio Females per 1000 males		
	Total	Rural	Urban	Total	Rural	Urban
Population	0.479	0.487	0.468	919	949	880
Population 0-6 years	0.471	0.477	0.460	890	912	852
Population 7 years and above	0.480	0.489	0.460	923	957	883
Scheduled Castes	0.482	0.485	0.479	931	942	919
Scheduled Tribes	0.495	0.496	0.488	980	984	953
Literates	0.429	0.418	0.440	751	718	786
Workers	0.273	0.347	0.149	376	531	175
Main workers	0.186	0.230	0.125	229	299	143
Main cultivators	0.142	0.143	0.113	166	167	127
Main agricultural labourers	0.330	0.335	0.265	493	504	361
Household industry workers	0.278	0.240	0.310	385	316	449
Other main workers	0.145	0.218	0.117	170	279	133
Marginal (3-6) workers	0.682	0.729	0.432	2145	2690	761
Cultivators	0.769	0.776	0.551	3329	3464	1227
Agricultural labourers	0.734	0.738	0.608	2759	2817	1551
Household industry workers	0.692	0.682	0.705	2247	2145	2390
Other workers	0.537	0.659	0.388	1160	1933	634
Marginal (0-3) workers	0.611	0.649	0.436	1571	1849	773
Cultivators	0.683	0.684	0.569	2155	2165	1320
Agricultural labourers	0.666	0.668	0.626	1994	2012	1674
Household industry workers	0.679	0.643	0.717	2115	1801	2534
Other workers	0.466	0.551	0.375	873	1227	600

Source: Author's calculations

Variation in the proportionate share of females in different population sub-groups from the proportion share of females in the whole population are substantial. In the population aged 0-6 years, the proportionate share of females is only 47 per cent which implies a sex ratio of only 890 females per 1000 males. The corresponding proportion in the rural areas is close to 48 per cent but only 46 per cent in the urban areas. In other words, there are only 852 female children aged 0-6 years for every 1000 male children aged 0-6 years in the urban areas of the state compared to 912 females children aged 0-6 years for every 1000 male children aged 0-6 years in the rural areas. The very low share of female children aged 0-6 years in the rural areas of the state appears to be a reflection of a high prevalence of sex selective abortions in the urban areas. The ratio of female infants to male infant is 883 female infants for every 1000 males infants - 904 in the rural areas but only 851 in the urban areas.

Figure 1
 Proportionate share of females in total population
 and in different population sub-groups in Gujarat



Compared to the population aged 0-6 years, the proportionate share of females in population aged 7 years and above is higher than that in the total population in both rural and urban populations, albeit marginally. Similarly, the proportionate share of females in Scheduled Tribes is substantially higher than the state average in both rural and urban areas. In the rural areas of the state, the proportionate share of females in Scheduled Tribes is very close to 0.50 which means that the number of female Scheduled Tribes is very nearly the same as the number of male scheduled tribes - there are 984 female Scheduled Tribes for every 1000 male Scheduled Tribes in the state.

In case of Scheduled Castes, the proportionate share of females is marginally higher than that of the state average in the urban population but marginally lower than that of the state average in the rural population. As a result, the rural-urban difference in the proportionate share of females in Scheduled Castes is substantially narrower than that in the total population.

Compared to the total population, the proportionate share of females in the literate population and in working population is substantially lower indicating that the gender balance in these population sub-groups is highly unfavourable to females. Among the literates, less than 43 per cent are females - less than 42 per cent in the rural population and 44 per cent in the urban population. As the result, there are only 751 female literates for every 1000 male literates. In the rural areas, there are only 718 female literates for every 1000 literates while there were 786 female literates for every 1000 male literates in the urban areas.

In case of the working population, the situation appears to be even worse. Just around 27 per cent of the workers in the state are female. This proportion is less than 15 per cent in the urban areas, albeit around 35 per cent in the rural areas so that there are only 175 female workers for every 1000 male workers in the urban areas of the state. The very low proportionate share of females in the workforce indicates that opportunities for the participation of females in the social and economic productive system are extremely limited in the state, especially in the urban areas.

Workers have been further categorised into main workers and marginal workers. Main workers are those who were engaged in some productive activity for at least 6 months during the year prior to the census. All other workers were marginal workers who were further classified into two groups - workers who were engaged in some productive activities for a period of 3-6 months during the year prior to the census and workers who were engaged for less than 3 months. In each of these three categories, workers were classified as cultivators, agricultural labourers, household industry population and other workers. Table 2 suggests that the gender balance was highly unfavourable to females in main workers as less than one fifth of them were females - 23 per cent in rural and only around 12 per cent in urban areas. The situation is even more unfavourable to females in case of cultivators and other main workers in both rural and urban areas. The situation was marginally better in case of agricultural labourers and household industry workers but the marginalisation of females in the main work force is very much evident from table 2.

In case of marginal workers, the situation is radically different. In this population sub-group, females consistently outnumber males in the rural population but not in the urban population. Among the workers in the urban areas other than cultivators, agricultural labourers and household industry workers, the gender balance is unfavourable to females and this unfavourable gender balance is reflected in the gender balance unfavourable to females in the whole marginal workforce in the urban areas. Obviously, compared to rural areas, opportunities for even the marginal work are substantially limited for females in the urban areas of the state.

Gender Balance in Districts of Gujarat

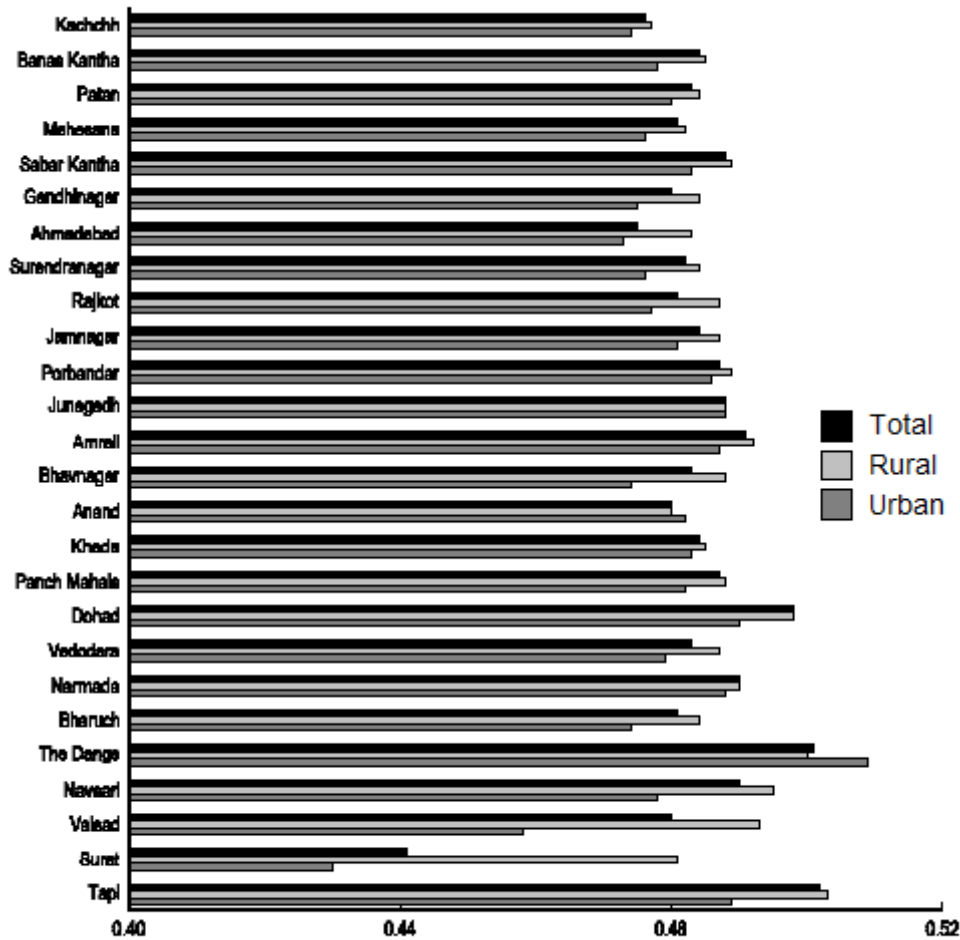
Estimates of the proportionate share of females in the total population and for different sub-groups of the population in the districts of the state as they existed at the time of 2011 population census are given in table 3 through 6. Out of the 26 districts, the proportionate share of females in the total population was more than 0.50 in only two districts - Tapi and The Dangs. Tapi having the highest proportionate share of females in the population in the state. On the other hand, this proportion was the lowest in district Surat where females constituted only around 44 per cent of the total population of the district. Surat is the only district of the state where the proportionate share of females in the total population is found to be less than 47.5 per cent which indicates that the gender balance in the population of the district is highly unfavourable to females in the district.

The rural-urban difference in the gender balance in the total population in the districts of the state is different for different districts. In all but one districts of the state, the gender balance is more favourable to females in the rural areas as compared to the urban areas. The Dangs is the only district in the state where the proportionate share of females is higher in the urban population as compared to the proportionate share of females in the rural population. On the other hand, the rural-urban gap in the gender balance is very wide in district Surat. The proportionate share of females in the rural population of district Surat was more than 48 per cent compared to only 43 per cent in the urban population. At the same time, there are many districts in the state where the rural-urban gap in the gender balance is quite narrow.

Compared to the total population, there is no district in the state where the proportionate share of females in the population 0-6 years was equal to and more than 0.50 at the 2011 population census. The proportionate share of females in population aged 0-6 years has been found to be the highest in district The Dangs where females accounted for more than 49 per cent of the population aged 0-6 years in the district as well as in the rural and urban areas of the district. Moreover, in all but three districts, the proportionate share of females in the population aged 0-6 years is less than the proportionate share of females in the total population. The three districts where the proportionate share of females in the population aged 0-6 years is higher than that in the total population are Kachachh, Valsad and Surat. In the rural areas, the proportionate share of females in population aged 0-6 years is higher than that in total population in only two districts - Kachachh and Surat. Similarly, in the urban areas, the proportionate share of females in population aged 0-6 years is higher than that in the total population in only The Dangs and Tapi districts.

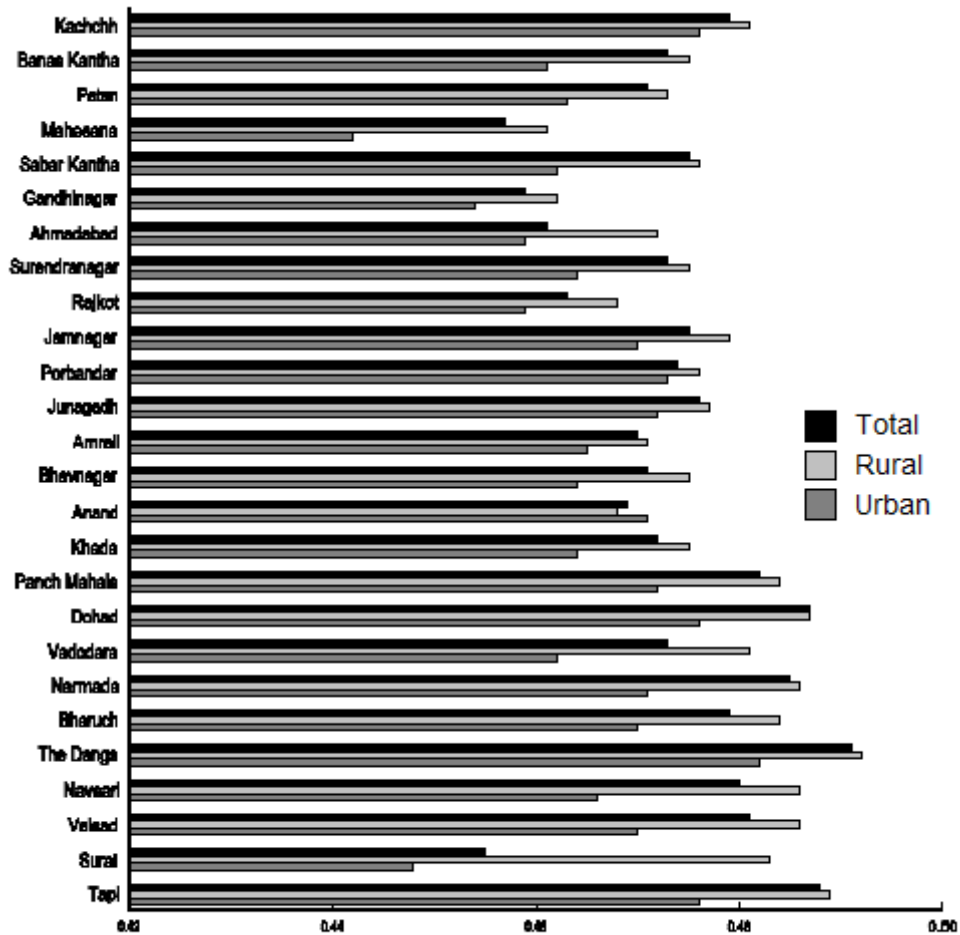
On the other hand, the proportionate share of females in population aged 0-6 years has been found to be the lowest in district Surat followed by district Mahesana and district Gandhinagar. In these districts, females aged 0-6 years accounted for less than 46 per cent of the population aged 0-6 years at the 2011 population census. Proportionate share of females in population aged 0-6 years has also been found to be comparatively low in Ahmedabad and Rajkot districts of the state.

Figure 2
Proportionate share of females in total population in districts of Gujarat



As regards rural urban difference in the proportionate share of females in the population aged 0-6 years, the proportion in the rural population is higher than that in the urban population in all but one districts of the state. District Anand is the only district in the state where the proportionate share of females in the rural population is less than the proportionate share of females in the urban population. By contrast, the proportionate share of females in population aged 0-6 years in the urban areas of the district Surat is estimated to be less than 45 per cent compared to more than 48 per cent in the rural areas of the district. In Mahesana, Ahmedabad, Valsad and Navsari districts also, the rural-urban difference in the proportionate share of females in population aged 0-6 years is found to be quite substantial. The 2011 census data suggest that the gender balance in population aged 0-6 years is in general more unfavourable to females in most of the districts of the state as compared to the gender balance in the total population.

Figure 3
Proportionate share of females in population aged 0-6 years in districts of Gujarat



In the population aged 7 years and above, there are only three districts - Dohad, The Dangs and Tapi - where the proportionate share of females is more than 0.50 meaning that females constituted at least half of the population aged 7 years in these districts. In other words, the number of females aged 7 years and above in these districts are either equal to the number of males or females aged 7 years and above outnumber males aged 7 years and above in these districts.

On the other hand, the proportionate share of females in the population aged 7 years and above is found to be the lowest in district Surat in total and urban populations and in district Kachchh in the rural population. It may also be seen from table 3 that the inter-district variation in the proportionate share of females in the population aged 7 years and above is very much similar to the inter-district variation in this proportion for the total population as a whole.

Table 3
Proportion share of females in total population and in different population sub-groups
in districts of Gujarat

District	Population			Scheduled	Scheduled	Literates	Workers
	Total	0-6	7+	Castes	Tribes		
	Total						
Kachchh	0.476	0.479	0.475	0.485	0.471	0.410	0.195
Banas Kantha	0.484	0.473	0.486	0.483	0.492	0.385	0.330
Patan	0.483	0.471	0.485	0.480	0.486	0.410	0.310
Mahesana	0.481	0.457	0.484	0.480	0.481	0.436	0.275
Sabar Kantha	0.488	0.475	0.490	0.486	0.497	0.418	0.372
Gandhinagar	0.480	0.459	0.483	0.476	0.467	0.435	0.237
Ahmedabad	0.475	0.461	0.477	0.475	0.472	0.443	0.180
Surendranagar	0.482	0.473	0.483	0.479	0.484	0.412	0.303
Rajkot	0.481	0.463	0.483	0.484	0.479	0.444	0.216
Jamnagar	0.484	0.475	0.485	0.485	0.487	0.431	0.237
Porbandar	0.487	0.474	0.489	0.487	0.484	0.437	0.247
Junagadh	0.488	0.476	0.490	0.487	0.488	0.432	0.286
Amreli	0.491	0.470	0.494	0.484	0.473	0.439	0.310
Bhavnagar	0.483	0.471	0.484	0.485	0.478	0.424	0.271
Anand	0.480	0.469	0.482	0.479	0.486	0.436	0.257
Kheda	0.484	0.472	0.486	0.483	0.478	0.432	0.278
Panch Mahals	0.487	0.482	0.488	0.489	0.490	0.404	0.386
Dohad	0.498	0.487	0.500	0.501	0.498	0.405	0.459
Vadodara	0.483	0.473	0.484	0.483	0.490	0.442	0.272
Narmada	0.490	0.485	0.491	0.489	0.492	0.428	0.409
Bharuch	0.481	0.479	0.481	0.486	0.487	0.443	0.252
The Dangs	0.501	0.491	0.504	0.506	0.502	0.452	0.481
Navsari	0.490	0.480	0.491	0.494	0.500	0.462	0.311
Valsad	0.480	0.481	0.480	0.489	0.500	0.440	0.305
Surat	0.441	0.455	0.439	0.480	0.496	0.412	0.161
Tapi	0.502	0.488	0.503	0.493	0.505	0.451	0.443
	Rural						
Kachchh	0.477	0.481	0.476	0.488	0.466	0.394	0.216
Banas Kantha	0.485	0.475	0.487	0.484	0.492	0.377	0.353
Patan	0.484	0.473	0.486	0.480	0.484	0.400	0.341
Mahesana	0.482	0.461	0.485	0.480	0.480	0.431	0.306
Sabar Kantha	0.489	0.476	0.491	0.486	0.498	0.412	0.393
Gandhinagar	0.484	0.462	0.487	0.477	0.472	0.427	0.277
Ahmedabad	0.483	0.472	0.484	0.477	0.483	0.398	0.278
Surendranagar	0.484	0.475	0.486	0.480	0.487	0.401	0.349

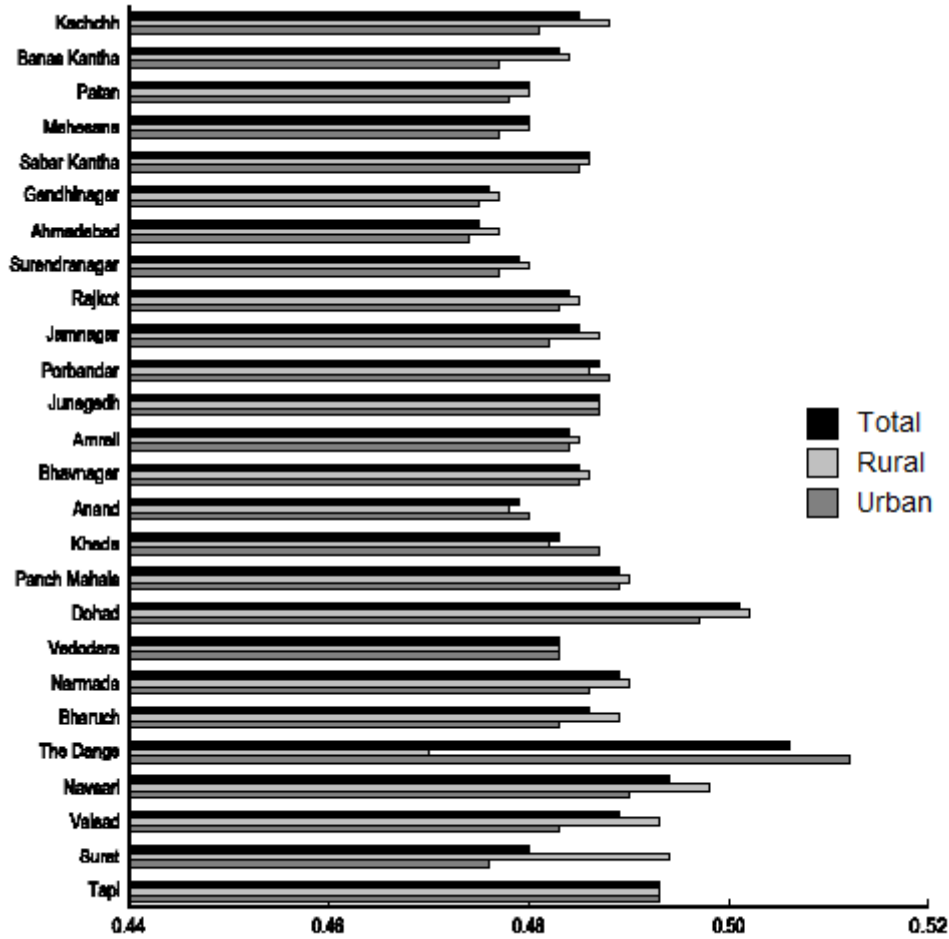
District	Population			Scheduled	Scheduled	Literates	Workers
	Total	0-6	7+	Castes	Tribes		
Rajkot	0.487	0.468	0.489	0.485	0.478	0.432	0.309
Jamnagar	0.487	0.479	0.488	0.487	0.487	0.420	0.293
Porbandar	0.489	0.476	0.490	0.486	0.483	0.423	0.312
Junagadh	0.488	0.477	0.489	0.487	0.485	0.422	0.334
Amreli	0.492	0.471	0.495	0.485	0.466	0.434	0.345
Bhavnagar	0.488	0.475	0.490	0.486	0.467	0.413	0.337
Anand	0.480	0.468	0.481	0.478	0.481	0.427	0.283
Kheda	0.485	0.475	0.486	0.482	0.477	0.425	0.303
Panch Mahals	0.488	0.484	0.488	0.490	0.490	0.395	0.411
Dohad	0.498	0.487	0.501	0.502	0.498	0.398	0.474
Vadodara	0.487	0.481	0.488	0.483	0.491	0.417	0.350
Narmada	0.490	0.486	0.491	0.490	0.492	0.423	0.423
Bharuch	0.484	0.484	0.484	0.489	0.487	0.437	0.295
The Dangs	0.500	0.492	0.502	0.470	0.501	0.446	0.497
Navsari	0.495	0.486	0.496	0.498	0.500	0.463	0.351
Valsad	0.493	0.486	0.494	0.493	0.500	0.445	0.368
Surat	0.481	0.483	0.480	0.494	0.499	0.441	0.327
Tapi	0.503	0.489	0.505	0.493	0.505	0.450	0.457
				Urban			
Kachchh	0.474	0.476	0.474	0.481	0.477	0.433	0.153
Banas Kantha	0.478	0.461	0.480	0.477	0.490	0.424	0.135
Patan	0.480	0.463	0.483	0.478	0.488	0.440	0.155
Mahesana	0.476	0.442	0.480	0.477	0.481	0.450	0.160
Sabar Kantha	0.483	0.462	0.486	0.485	0.481	0.446	0.206
Gandhinagar	0.475	0.454	0.477	0.475	0.466	0.444	0.175
Ahmedabad	0.473	0.459	0.475	0.474	0.469	0.450	0.158
SurenDRanagar	0.476	0.464	0.477	0.477	0.461	0.434	0.152
Rajkot	0.477	0.459	0.479	0.483	0.480	0.452	0.130
Jamnagar	0.481	0.470	0.482	0.482	0.486	0.442	0.151
Porbandar	0.486	0.473	0.487	0.488	0.488	0.449	0.159
Junagadh	0.488	0.472	0.490	0.487	0.493	0.450	0.155
Amreli	0.487	0.465	0.489	0.484	0.483	0.454	0.168
Bhavnagar	0.474	0.464	0.476	0.485	0.485	0.437	0.155
Anand	0.482	0.471	0.484	0.480	0.489	0.455	0.185
Kheda	0.483	0.464	0.486	0.487	0.479	0.454	0.170
Panch Mahals	0.482	0.472	0.483	0.489	0.487	0.451	0.147
Dohad	0.490	0.476	0.493	0.497	0.496	0.451	0.239
Vadodara	0.479	0.462	0.481	0.483	0.475	0.460	0.161
Narmada	0.488	0.471	0.490	0.486	0.488	0.462	0.224

District	Population			Scheduled	Scheduled	Literates	Workers
	Total	0-6	7+	Castes	Tribes		
Bharuch	0.474	0.470	0.474	0.483	0.485	0.452	0.146
The Dangs	0.509	0.482	0.513	0.512	0.520	0.488	0.244
Navsari	0.478	0.466	0.480	0.490	0.503	0.458	0.198
Valsad	0.458	0.470	0.456	0.483	0.503	0.433	0.182
Surat	0.430	0.448	0.428	0.476	0.484	0.406	0.110
Tapi	0.489	0.476	0.490	0.493	0.505	0.459	0.244
Summary measures of inter-district variation							
				Total			
Minimum	0.441	0.455	0.439	0.475	0.467	0.385	0.161
Median	0.484	0.474	0.485	0.485	0.487	0.434	0.282
Maximum	0.502	0.491	0.504	0.506	0.505	0.462	0.481
IQR	0.007	0.009	0.007	0.008	0.015	0.028	0.077
				Rural			
Minimum	0.477	0.461	0.476	0.470	0.466	0.377	0.216
Median	0.487	0.477	0.488	0.486	0.487	0.423	0.339
Maximum	0.503	0.492	0.505	0.502	0.505	0.463	0.497
IQR	0.006	0.010	0.005	0.009	0.016	0.030	0.061
				Urban			
Minimum	0.430	0.442	0.428	0.474	0.461	0.406	0.110
Median	0.480	0.466	0.482	0.483	0.486	0.450	0.160
Maximum	0.509	0.482	0.513	0.512	0.520	0.488	0.244
IQR	0.010	0.010	0.010	0.008	0.010	0.014	0.032

Source: Author's calculations

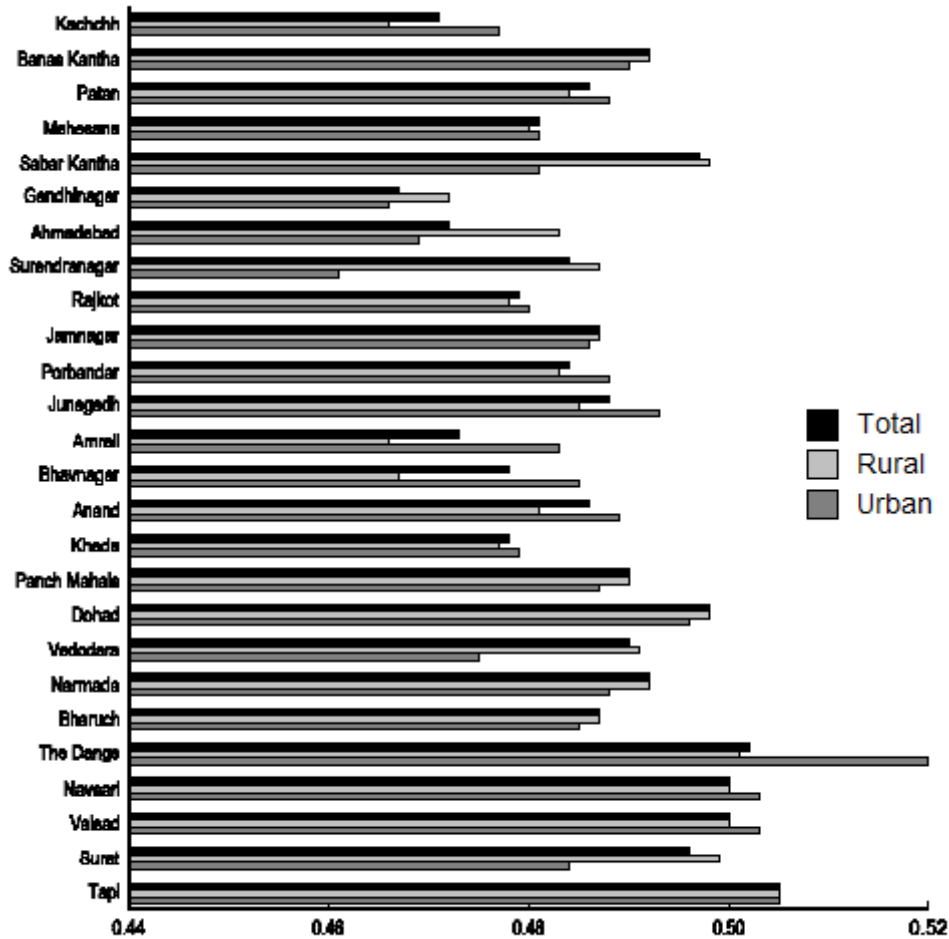
Inter-district variation in the proportionate share of females in Scheduled Castes and Scheduled Tribes population is also evident from table 3 and figure 4 and 5. There are only two districts - Dohad and the Dangs - where the proportionate share of females in Scheduled Castes is more than 0.50 indicating that Scheduled Castes females outnumber Scheduled Tribes females in these districts. In district Dohad, the gender balance is favourable to females because the female Scheduled Castes outnumber male Scheduled Tribes in the rural areas. On the other hand, the gender balance is favourable to females in district The Dangs because female Scheduled Tribes outnumber male Scheduled Tribes in the urban areas. On the other hand, the proportionate share of females in the Scheduled Tribes population has been found to be the lowest in district Ahmedabad followed by district Gandhinagar. In district Ahmedabad females constituted just around 47.5 per cent of the total Scheduled Tribes population enumerated at the 2011 population census. In district Gandhinagar, this proportion was 47.6 per cent. In the rural areas, the proportionate share of females in the Scheduled Tribes population is found to be the lowest in district Gandhinagar but in the urban areas, the proportionate share of females in the Scheduled Tribes population has been found to be the lowest again in Ahmedabad and Gandhinagar districts.

Figure 4
Proportionate share of females in Scheduled Castes in districts of Gujarat



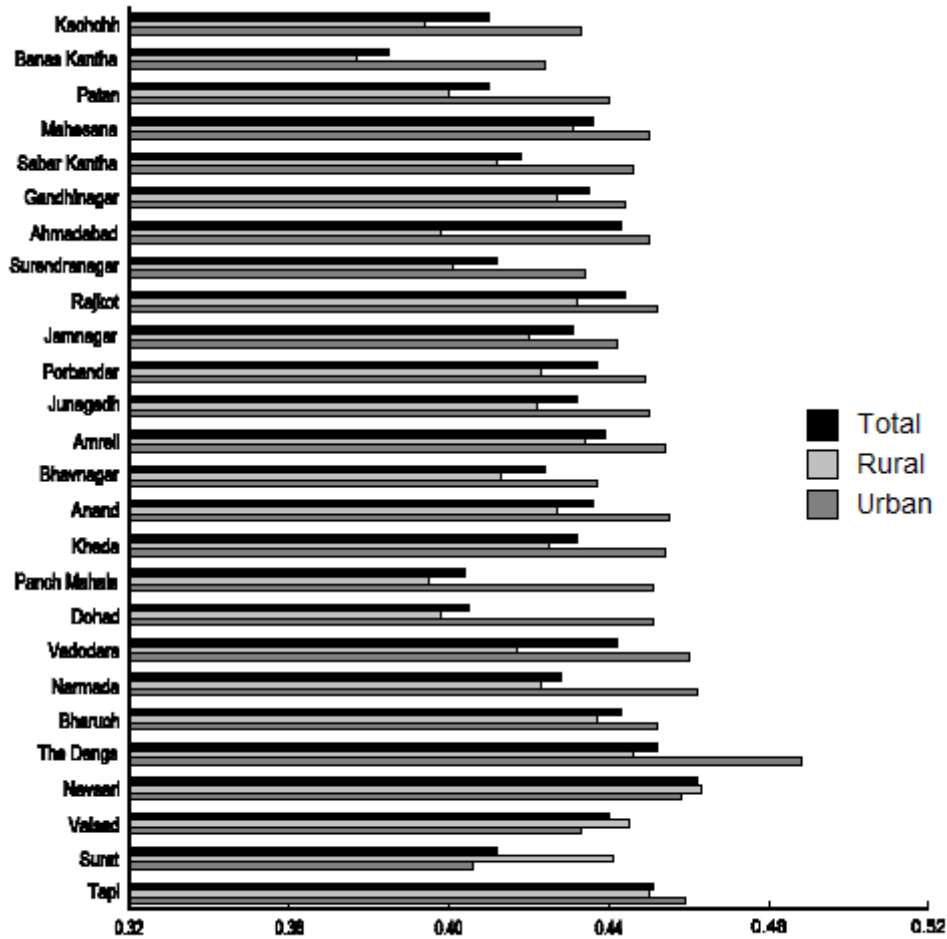
The pattern of gender balance in Scheduled Tribes is more or less similar to that in Scheduled Castes. The proportionate share of females in the Scheduled Tribes population is found to be more than 0.50 in three districts - The Dangs, Navsari and Valsad - in the district as well as in its rural areas and in The Dangs districts in the urban areas. On the other hand, the proportionate share of females has been found to be the lowest in district Gandhinagar for the rural-urban combined population; in district Kachachh in the rural areas; and in district Surendranagar in the urban areas. An interesting observation of table 3 and figure 5 is that in the Scheduled Tribes population, the proportionate share of females is higher in the urban population as compared to the rural population. This pattern is unique in Scheduled Tribes as in most of the sub-groups of the population, the gender balance is comparatively more favourable to females in the rural areas than in the urban areas.

Figure 5
Proportionate share of females in Scheduled Tribes in districts of Gujarat



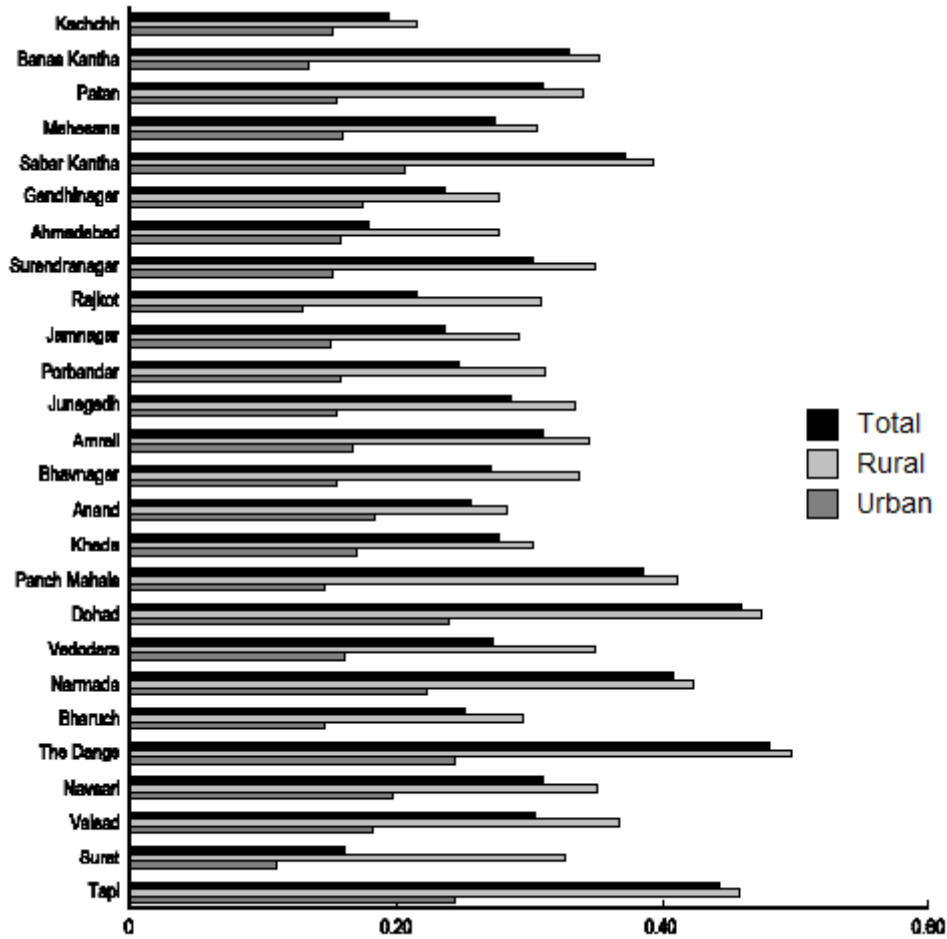
There is no district in the state where the gender balance in the literate population is favourable to females either in the district as a whole or in rural and urban areas separately. This means that male literates outnumber female literates in all districts and in both rural and urban areas. In general, the proportionate share of females in the literate population is higher in the urban as compared to the rural areas but there are three districts where the proportionate share of females in literates is higher in rural areas as compared to the proportionate share of literates in the urban areas are Navsari, Valsad and Surat. All the three districts are located in the southern part of the state and are physically contiguous. The proportionate share of females in literates is found to be the highest in total and rural populations in district Navsari and in district The Dangs in the urban population. On the other hand, this proportion has been found to be the lowest in district Banas Kantha in total population and rural areas and in district Surat in the urban areas.

Figure 6
Proportionate share of females in literates in districts of Gujarat



The gender balance in workers is however highly unfavourable to females in all the districts of the state. In district Surat, the proportionate share of females in workers is only about 16 per cent in the total population. In 14 districts of the state, the proportionate share of females in workers is less than 30 per cent in the total population. Similarly, in six districts, the proportionate share of females in workers in the rural areas is less than 30 per cent with the lowest proportionate share in district Kachachh. On the other hand, in the urban areas, the proportionate share of females in workers is found to be less than 30 per cent in all districts with the lowest proportionate share being in district Surat. There are only three districts - Narmada, The Dangs and Tapi - where the proportionate share of females in workers in the district is found to more than 40 per cent according to the 2011 population census. On the other hand, there are five districts - Panch Mahals, Dohad, Narmada, The Dangs and tapi - where the proportionate share of females in workers in rural areas is found to be more than 40 per cent.

Figure 7
Proportionate share of females in workers in districts of Gujarat



The proportionate share of females in main workers in the districts of the state and in their rural and urban areas is given in tables 4 while that for marginal workers is given in tables 5 and 6. In case of main workers, the proportionate share of females is quite low in all districts. In fact, the proportionate share of females in main workers is found to be more than 40 per cent in the rural areas of district The Dangs only. In the urban areas, the proportionate share of females in the main workers has been found to be more than 20 per cent in only two districts - The Dangs and Tapi. It is also clear from table 4 that the situation is more less the same in different categories of main workers. Obviously, the gender balance in main workers is highly unfavourable to females in all districts of the state. This suggests that opportunities for the participation of females in the social and economic production system are very limited. The participation of females in the social and economic production system either in the rural or in the urban areas remains largely marginal.

Table 4
Proportionate share of females in main workforce in districts of Gujarat

District	Main workers				
	Total	Cultivators	Agricultural labourers	Household industry	Others
			Total		
Kachchh	0.139	0.108	0.258	0.312	0.105
Banas Kantha	0.230	0.129	0.319	0.230	0.297
Patan	0.207	0.100	0.298	0.361	0.197
Mahesana	0.210	0.079	0.290	0.256	0.234
Sabar Kantha	0.247	0.098	0.374	0.292	0.330
Gandhinagar	0.175	0.070	0.249	0.241	0.186
Ahmedabad	0.140	0.077	0.244	0.321	0.130
Surendranagar	0.198	0.161	0.309	0.216	0.138
Rajkot	0.165	0.222	0.327	0.281	0.108
Jamnagar	0.162	0.182	0.293	0.294	0.110
Porbandar	0.176	0.179	0.314	0.244	0.125
Junagadh	0.198	0.191	0.324	0.190	0.116
Amreli	0.195	0.190	0.312	0.203	0.108
Bhavnagar	0.203	0.187	0.384	0.229	0.120
Anand	0.174	0.040	0.214	0.164	0.206
Kheda	0.178	0.063	0.228	0.262	0.229
Panch Mahals	0.181	0.118	0.358	0.234	0.178
Dohad	0.248	0.135	0.565	0.216	0.198
Vadodara	0.176	0.093	0.315	0.201	0.141
Narmada	0.270	0.179	0.337	0.266	0.216
Bharuch	0.195	0.103	0.311	0.183	0.132
The Dangs	0.387	0.361	0.508	0.381	0.270
Navsari	0.264	0.217	0.414	0.293	0.183
Valsad	0.220	0.220	0.399	0.236	0.175
Surat	0.137	0.137	0.420	0.370	0.094
Tapi	0.366	0.257	0.459	0.456	0.263
			Rural		
Kachchh	0.146	0.102	0.256	0.293	0.094
Banas Kantha	0.246	0.130	0.322	0.218	0.392
Patan	0.226	0.101	0.300	0.323	0.269
Mahesana	0.233	0.077	0.291	0.277	0.320
Sabar Kantha	0.260	0.098	0.377	0.289	0.417
Gandhinagar	0.197	0.069	0.253	0.253	0.267
Ahmedabad	0.168	0.069	0.247	0.209	0.143
Surendranagar	0.225	0.162	0.311	0.215	0.174

District	Main workers				
	Total	Cultivators	Agricultural labourers	Household industry	Others
Rajkot	0.231	0.229	0.338	0.226	0.133
Jamnagar	0.192	0.183	0.294	0.255	0.117
Porbandar	0.210	0.180	0.311	0.217	0.145
Junagadh	0.226	0.193	0.329	0.176	0.122
Amreli	0.216	0.194	0.320	0.169	0.106
Bhavnagar	0.249	0.189	0.388	0.191	0.131
Anand	0.185	0.040	0.215	0.129	0.296
Kheda	0.189	0.063	0.232	0.273	0.323
Panch Mahals	0.191	0.118	0.361	0.252	0.234
Dohad	0.257	0.135	0.567	0.215	0.237
Vadodara	0.204	0.094	0.319	0.148	0.139
Narmada	0.281	0.180	0.339	0.279	0.264
Bharuch	0.226	0.104	0.315	0.192	0.148
The Dangs	0.401	0.361	0.518	0.474	0.339
Navsari	0.297	0.219	0.416	0.262	0.195
Valsad	0.262	0.222	0.403	0.232	0.214
Surat	0.281	0.142	0.425	0.285	0.145
Tapi	0.378	0.257	0.459	0.466	0.298
			Urban		
Kachchh	0.126	0.226	0.323	0.337	0.115
Banas Kantha	0.106	0.074	0.190	0.286	0.101
Patan	0.126	0.071	0.233	0.427	0.113
Mahesana	0.127	0.126	0.252	0.208	0.119
Sabar Kantha	0.162	0.129	0.299	0.300	0.152
Gandhinagar	0.143	0.079	0.228	0.227	0.138
Ahmedabad	0.135	0.125	0.225	0.332	0.129
Surendranagar	0.123	0.125	0.258	0.220	0.114
Rajkot	0.109	0.116	0.234	0.306	0.102
Jamnagar	0.119	0.145	0.285	0.322	0.107
Porbandar	0.136	0.178	0.332	0.270	0.119
Junagadh	0.130	0.148	0.277	0.213	0.112
Amreli	0.125	0.092	0.234	0.269	0.111
Bhavnagar	0.129	0.147	0.342	0.272	0.115
Anand	0.144	0.043	0.207	0.210	0.139
Kheda	0.138	0.053	0.180	0.237	0.135
Panch Mahals	0.118	0.081	0.255	0.137	0.113
Dohad	0.160	0.117	0.492	0.221	0.143
Vadodara	0.145	0.081	0.246	0.247	0.141

District	Main workers				
	Total	Cultivators	Agricultural labourers	Household industry	Others
Narmada	0.163	0.079	0.254	0.173	0.153
Bharuch	0.126	0.079	0.226	0.165	0.121
The Dangs	0.213	0.272	0.281	0.167	0.202
Navsari	0.181	0.125	0.358	0.373	0.173
Valsad	0.155	0.172	0.345	0.242	0.148
Surat	0.097	0.097	0.359	0.388	0.089
Tapi	0.209	0.163	0.402	0.318	0.195
Summary measures of inter-district variation					
			Total		
Minimum	0.137	0.040	0.214	0.164	0.094
Median	0.197	0.136	0.317	0.250	0.177
Maximum	0.387	0.361	0.565	0.456	0.330
IQR	0.052	0.091	0.087	0.074	0.092
			Rural		
Minimum	0.146	0.040	0.215	0.129	0.094
Median	0.226	0.139	0.321	0.242	0.205
Maximum	0.401	0.361	0.567	0.474	0.417
IQR	0.060	0.093	0.090	0.068	0.149
			Urban		
Minimum	0.097	0.043	0.180	0.137	0.089
Median	0.133	0.121	0.257	0.258	0.120
Maximum	0.213	0.272	0.492	0.427	0.202
IQR	0.027	0.067	0.096	0.100	0.030

Source: Author's calculations

The proportionate share of females in marginal workers who were engaged in some productive activity for less than 6 months in a year on average also confirms marginalisation of females in the social and economic production system in all districts of the state and irrespective of the category of work (Tables 5 and 6). It is very much evident from these table that for majority of females in the state and in its constituent districts, opportunities for participation in the social and economic production system for the major part of the year are simply not available and whatever participation is there, it is largely seasonal or irregular. Moreover, there are districts in the state where the proportionate share of females even in marginal workers is quite low which amply reflect marginalisation of females in the social and economic production system. It appears that this marginalisation of females in the social and economic production system of the state and its constituent district is an important determining factor of the low status accorded to females in the society. Since participation opportunities for females are limited, they have no other option but to depend upon males - father, husband, son, etc. - in their day to day life.

Table 5
Proportionate share of females in marginal workforce (3-6 months)
in districts of Gujarat

District	Workers who were engaged in some productive activity for 3-6 months during the year preceding the census				
	Total	Cultivators	Agricultural labourers	Household industry	Others
			Total		
Kachchh	0.632	0.704	0.731	0.818	0.487
Banas Kantha	0.769	0.778	0.751	0.677	0.792
Patan	0.739	0.770	0.781	0.547	0.633
Mahesana	0.685	0.711	0.748	0.724	0.612
Sabar Kantha	0.728	0.740	0.695	0.771	0.768
Gandhinagar	0.579	0.576	0.623	0.750	0.534
Ahmedabad	0.538	0.643	0.698	0.694	0.438
Surendranagar	0.755	0.838	0.796	0.761	0.550
Rajkot	0.655	0.861	0.790	0.729	0.414
Jamnagar	0.665	0.872	0.769	0.723	0.406
Porbandar	0.621	0.804	0.719	0.584	0.368
Junagadh	0.757	0.885	0.799	0.631	0.455
Amreli	0.792	0.890	0.812	0.704	0.505
Bhavnagar	0.699	0.809	0.819	0.629	0.438
Anand	0.634	0.498	0.668	0.623	0.604
Kheda	0.625	0.531	0.631	0.714	0.634
Panch Mahals	0.740	0.780	0.744	0.618	0.683
Dohad	0.736	0.733	0.770	0.693	0.537
Vadodara	0.673	0.716	0.751	0.607	0.391
Narmada	0.678	0.605	0.698	0.661	0.529
Bharuch	0.561	0.585	0.652	0.561	0.392
The Dangs	0.759	0.825	0.738	0.753	0.569
Navsari	0.607	0.695	0.660	0.587	0.424
Valsad	0.608	0.641	0.680	0.615	0.430
Surat	0.554	0.674	0.707	0.799	0.414
Tapi	0.680	0.679	0.712	0.675	0.513
			Rural		
Kachchh	0.681	0.712	0.731	0.820	0.549
Banas Kantha	0.781	0.780	0.752	0.669	0.831
Patan	0.767	0.775	0.780	0.522	0.738
Mahesana	0.740	0.722	0.751	0.729	0.730
Sabar Kantha	0.742	0.742	0.696	0.783	0.814
Gandhinagar	0.662	0.603	0.650	0.813	0.678

District	Workers who were engaged in some productive activity for 3-6 months during the year preceding the census				
	Total	Cultivators	Agricultural labourers	Household industry	Others
Ahmedabad	0.696	0.705	0.719	0.620	0.596
Surendranagar	0.784	0.841	0.799	0.756	0.630
Rajkot	0.772	0.870	0.807	0.655	0.495
Jamnagar	0.774	0.879	0.776	0.700	0.516
Porbandar	0.741	0.812	0.737	0.621	0.547
Junagadh	0.812	0.890	0.808	0.621	0.561
Amreli	0.818	0.893	0.813	0.628	0.553
Bhavnagar	0.771	0.817	0.825	0.608	0.522
Anand	0.675	0.514	0.668	0.667	0.721
Kheda	0.652	0.537	0.634	0.750	0.719
Panch Mahals	0.748	0.780	0.745	0.635	0.722
Dohad	0.739	0.734	0.770	0.712	0.544
Vadodara	0.730	0.729	0.756	0.634	0.483
Narmada	0.684	0.610	0.700	0.685	0.551
Bharuch	0.605	0.598	0.657	0.630	0.441
The Dangs	0.766	0.826	0.739	0.767	0.640
Navsari	0.630	0.697	0.664	0.564	0.432
Valsad	0.635	0.645	0.685	0.610	0.438
Surat	0.664	0.700	0.713	0.689	0.496
Tapi	0.692	0.680	0.713	0.679	0.564
Urban					
Kachchh	0.473	0.622	0.748	0.814	0.419
Banas Kantha	0.477	0.538	0.674	0.745	0.430
Patan	0.417	0.439	0.784	0.645	0.314
Mahesana	0.417	0.466	0.661	0.712	0.367
Sabar Kantha	0.489	0.624	0.636	0.696	0.433
Gandhinagar	0.391	0.382	0.443	0.640	0.366
Ahmedabad	0.443	0.541	0.484	0.706	0.419
Surendranagar	0.487	0.648	0.648	0.773	0.436
Rajkot	0.419	0.544	0.573	0.758	0.378
Jamnagar	0.409	0.621	0.684	0.736	0.355
Porbandar	0.343	0.571	0.558	0.548	0.299
Junagadh	0.428	0.637	0.650	0.647	0.361
Amreli	0.562	0.775	0.778	0.813	0.441
Bhavnagar	0.434	0.585	0.703	0.649	0.375
Anand	0.457	0.287	0.678	0.540	0.408
Kheda	0.388	0.322	0.560	0.503	0.333

District	Workers who were engaged in some productive activity for 3-6 months during the year preceding the census				
	Total	Cultivators	Agricultural labourers	Household industry	Others
Panch Mahals	0.413	0.771	0.605	0.377	0.325
Dohad	0.615	0.707	0.782	0.497	0.467
Vadodara	0.364	0.483	0.461	0.563	0.344
Narmada	0.518	0.102	0.621	0.473	0.468
Bharuch	0.338	0.339	0.414	0.390	0.329
The Dangs	0.501	0.429	0.477	0.735	0.436
Navsari	0.437	0.622	0.508	0.677	0.411
Valsad	0.446	0.492	0.531	0.626	0.420
Surat	0.442	0.495	0.562	0.819	0.392
Tapi	0.409	0.386	0.573	0.604	0.377
Summary measures of inter-district variation					
			Total		
Minimum	0.538	0.498	0.623	0.547	0.368
Median	0.676	0.725	0.735	0.685	0.509
Maximum	0.792	0.890	0.819	0.818	0.792
IQR	0.116	0.157	0.074	0.109	0.170
			Rural		
Minimum	0.605	0.514	0.634	0.522	0.432
Median	0.740	0.732	0.738	0.668	0.557
Maximum	0.818	0.893	0.825	0.820	0.831
IQR	0.093	0.132	0.077	0.102	0.191
			Urban		
Minimum	0.338	0.102	0.414	0.377	0.299
Median	0.436	0.540	0.613	0.648	0.385
Maximum	0.615	0.775	0.784	0.819	0.468
IQR	0.066	0.191	0.139	0.184	0.071

Source: Author's calculations

The present analysis has used the proportionate share of females in the population and in different sub-groups of population to analyse the gender balance in Gujarat and in its constituent districts. Although, the proportionate share of females in the population is not the commonly used measure of gender balance, yet an advantage of using the proportionate share of females as a measure of gender balance is that this measure ranges between 0 and 1 which is not the case with the ratio of females to males which is commonly used as a measure of gender balance. For the purpose of convenience and comparison, we have also derived the ratio of females to males from the proportionate share of females in the population and in different sub-groups of population included in this report. Estimates of the ratio of females to males have been presented as appendix to this report for the convenience of reader.

Table 6
Proportionate share of females in marginal workforce (0-3 months)
in districts of Gujarat

District	Workers who were engaged in some productive activity for 0-3 months during the year preceding the census				
	Total	Cultivators	Agricultural labourers	Household industry	Others
	Total				
Kachchh	0.599	0.785	0.721	0.898	0.386
Banas Kantha	0.677	0.646	0.680	0.576	0.699
Patan	0.653	0.650	0.723	0.667	0.536
Mahesana	0.596	0.637	0.681	0.675	0.486
Sabar Kantha	0.624	0.589	0.631	0.681	0.620
Gandhinagar	0.534	0.564	0.653	0.582	0.443
Ahmedabad	0.517	0.663	0.738	0.705	0.387
Surendranagar	0.734	0.781	0.779	0.695	0.566
Rajkot	0.664	0.789	0.752	0.674	0.469
Jamnagar	0.667	0.778	0.733	0.729	0.441
Porbandar	0.702	0.751	0.750	0.809	0.482
Junagadh	0.697	0.748	0.737	0.684	0.496
Amreli	0.724	0.738	0.752	0.753	0.577
Bhavnagar	0.689	0.766	0.756	0.709	0.496
Anand	0.588	0.514	0.590	0.534	0.602
Kheda	0.529	0.557	0.563	0.636	0.445
Panch Mahals	0.582	0.627	0.602	0.675	0.452
Dohad	0.592	0.570	0.640	0.531	0.441
Vadodara	0.588	0.670	0.687	0.594	0.327
Narmada	0.646	0.645	0.672	0.704	0.464
Bharuch	0.492	0.622	0.552	0.515	0.352
The Dangs	0.717	0.619	0.786	0.434	0.444
Navsari	0.567	0.705	0.585	0.667	0.478
Valsad	0.578	0.605	0.633	0.546	0.400
Surat	0.503	0.620	0.635	0.846	0.398
Tapi	0.613	0.614	0.637	0.570	0.510
	Rural				
Kachchh	0.650	0.791	0.722	0.887	0.441
Banas Kantha	0.691	0.647	0.681	0.573	0.741
Patan	0.698	0.652	0.728	0.629	0.653
Mahesana	0.645	0.640	0.691	0.656	0.573
Sabar Kantha	0.637	0.590	0.635	0.688	0.672
Gandhinagar	0.594	0.563	0.650	0.611	0.522

District	Workers who were engaged in some productive activity for 0-3 months during the year preceding the census				
	Total	Cultivators	Agricultural labourers	Household industry	Others
Ahmedabad	0.712	0.711	0.760	0.716	0.555
Surendranagar	0.759	0.783	0.783	0.696	0.637
Rajkot	0.742	0.789	0.756	0.596	0.564
Jamnagar	0.707	0.777	0.724	0.660	0.493
Porbandar	0.738	0.751	0.759	0.784	0.573
Junagadh	0.728	0.750	0.753	0.657	0.553
Amreli	0.733	0.738	0.750	0.627	0.632
Bhavnagar	0.724	0.767	0.761	0.711	0.502
Anand	0.611	0.520	0.582	0.459	0.677
Kheda	0.554	0.558	0.552	0.648	0.549
Panch Mahals	0.591	0.627	0.598	0.702	0.490
Dohad	0.591	0.570	0.637	0.530	0.436
Vadodara	0.661	0.674	0.691	0.580	0.431
Narmada	0.655	0.647	0.676	0.711	0.498
Bharuch	0.535	0.626	0.561	0.528	0.408
The Dangs	0.735	0.618	0.785	0.419	0.579
Navsari	0.584	0.712	0.589	0.561	0.492
Valsad	0.599	0.605	0.639	0.579	0.415
Surat	0.572	0.634	0.640	0.698	0.381
Tapi	0.628	0.615	0.635	0.567	0.608
Urban					
Kachchh	0.402	0.698	0.698	0.911	0.307
Banas Kantha	0.439	0.440	0.562	0.593	0.416
Patan	0.374	0.333	0.615	0.725	0.290
Mahesana	0.388	0.429	0.490	0.703	0.348
Sabar Kantha	0.467	0.477	0.468	0.657	0.457
Gandhinagar	0.439	0.591	0.668	0.540	0.389
Ahmedabad	0.406	0.285	0.506	0.704	0.363
Surendranagar	0.475	0.563	0.638	0.690	0.428
Rajkot	0.487	0.753	0.721	0.703	0.427
Jamnagar	0.519	0.830	0.797	0.774	0.392
Porbandar	0.522	0.750	0.681	0.827	0.414
Junagadh	0.466	0.618	0.503	0.735	0.424
Amreli	0.629	0.765	0.779	0.913	0.480
Bhavnagar	0.540	0.653	0.658	0.708	0.491
Anand	0.491	0.188	0.662	0.586	0.417
Kheda	0.392	0.438	0.735	0.577	0.281

District	Workers who were engaged in some productive activity for 0-3 months during the year preceding the census				
	Total	Cultivators	Agricultural labourers	Household industry	Others
Panch Mahals	0.381	0.400	0.808	0.314	0.244
Dohad	0.610	0.423	0.722	0.536	0.489
Vadodara	0.307	0.273	0.491	0.612	0.284
Narmada	0.404	0.000	0.518	0.625	0.282
Bharuch	0.323	0.222	0.406	0.488	0.297
The Dangs	0.351	1.000	0.857	0.455	0.288
Navsari	0.483	0.188	0.442	0.850	0.459
Valsad	0.429	0.598	0.531	0.483	0.376
Surat	0.456	0.378	0.537	0.865	0.401
Tapi	0.389	0.500	0.750	0.609	0.337
Summary measures of inter-district variation					
			Total		
Minimum	0.492	0.514	0.552	0.434	0.327
Median	0.606	0.646	0.681	0.675	0.467
Maximum	0.734	0.789	0.786	0.898	0.699
IQR	0.096	0.130	0.104	0.127	0.065
			Rural		
Minimum	0.535	0.520	0.552	0.419	0.381
Median	0.653	0.647	0.686	0.639	0.551
Maximum	0.759	0.791	0.785	0.887	0.741
IQR	0.126	0.131	0.117	0.123	0.110
			Urban		
Minimum	0.307	0.000	0.406	0.314	0.244
Median	0.439	0.459	0.648	0.674	0.391
Maximum	0.629	1.000	0.857	0.913	0.491
IQR	0.096	0.300	0.213	0.153	0.127

Source: Author's calculations

Conclusions

The present analysis has used the data available through the primary census abstract of the 2011 population census to analyse gender balance in the population and in different sub-groups of the population at state and district level separately for rural, urban and total population. An important observation of the analysis is that gender imbalances in different population sub-groups are quite stark and analysis at the macro level obscures these imbalance. The analysis also shows that among the literates and workers, the gender balance still remains substantially unfavourable to females. The present analysis suggests

that opportunities of full participation in the social and economic system for females are at best limited which may be a reason behind the low status accorded to women in the society.

The analysis also emphasises the need of measuring and analysing gender balance at the micro level so as to highlight gender imbalances that appear to be so pervasive in the economy and the society. Although the primary census abstract of the population census provides the opportunity to measure and analyse gender imbalance at the grass roots level - villages in the rural areas and municipal wards in the urban areas - yet, there is little evidence that such an analysis has hardly been carried out in the state. A village and municipal ward level analysis of gender balance using the data available through the primary census abstract may help in prioritising villages and municipal wards as far as women's empowerment is concerned.

Appendix Table 1
Sex ratio (Females per 1000 males) in total population and in different population sub-
groups in districts of Gujarat

District	Population			Scheduled	Scheduled	Literates	Workers
	Total	0-6	7+	Castes	Tribes		
	Total						
Kachchh	908	919	905	942	890	695	242
Banas Kantha	938	898	946	934	969	626	493
Patan	934	890	942	923	946	695	449
Mahesana	927	842	938	923	927	773	379
Sabar Kantha	953	905	961	946	988	718	592
Gandhinagar	923	848	934	908	876	770	311
Ahmedabad	905	855	912	905	894	795	220
Surendranagar	931	898	934	919	938	701	435
Rajkot	927	862	934	938	919	799	276
Jamnagar	938	905	942	942	949	757	311
Porbandar	949	901	957	949	938	776	328
Junagadh	953	908	961	949	953	761	401
Amreli	965	887	976	938	898	783	449
Bhavnagar	934	890	938	942	916	736	372
Anand	923	883	931	919	946	773	346
Kheda	938	894	946	934	916	761	385
Panch Mahals	949	931	953	957	961	678	629
Dohad	992	949	1000	1004	992	681	848
Vadodara	934	898	938	934	961	792	374
Narmada	961	942	965	957	969	748	692
Bharuch	927	919	927	946	949	795	337
The Dangs	1004	965	1016	1024	1008	825	927
Navsari	961	923	965	976	1000	859	451
Valsad	923	927	923	957	1000	786	439
Surat	789	835	783	923	984	701	192
Tapi	1008	953	1012	972	1020	821	795
	Rural						
Kachchh	912	927	908	953	873	650	276
Banas Kantha	942	905	949	938	969	605	546
Patan	938	898	946	923	938	667	517
Mahesana	931	855	942	923	923	757	441
Sabar Kantha	957	908	965	946	992	701	647
Gandhinagar	938	859	949	912	894	745	383
Ahmedabad	934	894	938	912	934	661	385
Surendranagar	938	905	946	923	949	669	536

District	Population			Scheduled	Scheduled	Literates	Workers
	Total	0-6	7+	Castes	Tribes		
Rajkot	949	880	957	942	916	761	447
Jamnagar	949	919	953	949	949	724	414
Porbandar	957	908	961	946	934	733	453
Junagadh	953	912	957	949	942	730	502
Amreli	969	890	980	942	873	767	527
Bhavnagar	953	905	961	946	876	704	508
Anand	923	880	927	916	927	745	395
Kheda	942	905	946	931	912	739	435
Panch Mahals	953	938	953	961	961	653	698
Dohad	992	949	1004	1008	992	661	901
Vadodara	949	927	953	934	965	715	538
Narmada	961	946	965	961	969	733	733
Bharuch	938	938	938	957	949	776	418
The Dangs	1000	969	1008	887	1004	805	988
Navsari	980	946	984	992	1000	862	541
Valsad	972	946	976	972	1000	802	582
Surat	927	934	923	976	996	789	486
Tapi	1012	957	1020	972	1020	818	842
				Urban			
Kachchh	901	908	901	927	912	764	181
Banas Kantha	916	855	923	912	961	736	156
Patan	923	862	934	916	953	786	183
Mahesana	908	792	923	912	927	818	190
Sabar Kantha	934	859	946	942	927	805	259
Gandhinagar	905	832	912	905	873	799	212
Ahmedabad	898	848	905	901	883	818	188
Surendranagar	908	866	912	912	855	767	179
Rajkot	912	848	919	934	923	825	149
Jamnagar	927	887	931	931	946	792	178
Porbandar	946	898	949	953	953	815	189
Junagadh	953	894	961	949	972	818	183
Amreli	949	869	957	938	934	832	202
Bhavnagar	901	866	908	942	942	776	183
Anand	931	890	938	923	957	835	227
Kheda	934	866	946	949	919	832	205
Panch Mahals	931	894	934	957	949	821	172
Dohad	961	908	972	988	984	821	314
Vadodara	919	859	927	934	905	852	192
Narmada	953	890	961	946	953	859	289

District	Population			Scheduled	Scheduled	Literates	Workers
	Total	0-6	7+	Castes	Tribes		
Bharuch	901	887	901	934	942	825	171
The Dangs	1037	931	1053	1049	1083	953	323
Navsari	916	873	923	961	1012	845	247
Valsad	845	887	838	934	1012	764	222
Surat	754	812	748	908	938	684	124
Tapi	957	908	961	972	1020	848	323

Source: Author's calculations

Appendix Table 2
Sex ratio (Females per 1000 males) in main workforce in districts of Gujarat

District	Main workers				
	Total	Cultivators	Agricultural labourers	Household industry	Others
	Total				
Kachchh	161	121	348	453	117
Banas Kantha	299	148	468	299	422
Patan	261	111	425	565	245
Mahesana	266	86	408	344	305
Sabar Kantha	328	109	597	412	493
Gandhinagar	212	75	332	318	229
Ahmedabad	163	83	323	473	149
Surendranagar	247	192	447	276	160
Rajkot	198	285	486	391	121
Jamnagar	193	222	414	416	124
Porbandar	214	218	458	323	143
Junagadh	247	236	479	235	131
Amreli	242	235	453	255	121
Bhavnagar	255	230	623	297	136
Anand	211	42	272	196	259
Kheda	217	67	295	355	297
Panch Mahals	221	134	558	305	217
Dohad	330	156	1299	276	247
Vadodara	214	103	460	252	164
Narmada	370	218	508	362	276
Bharuch	242	115	451	224	152
The Dangs	631	565	1033	616	370
Navsari	359	277	706	414	224
Valsad	282	282	664	309	212
Surat	159	159	724	587	104
Tapi	577	346	848	838	357
	Rural				
Kachchh	171	114	344	414	104
Banas Kantha	326	149	475	279	645
Patan	292	112	429	477	368
Mahesana	304	83	410	383	471
Sabar Kantha	351	109	605	406	715
Gandhinagar	245	74	339	339	364
Ahmedabad	202	74	328	264	167
Surendranagar	290	193	451	274	211

District	Main workers				
	Total	Cultivators	Agricultural labourers	Household industry	Others
Rajkot	300	297	511	292	153
Jamnagar	238	224	416	342	133
Porbandar	266	220	451	277	170
Junagadh	292	239	490	214	139
Amreli	276	241	471	203	119
Bhavnagar	332	233	634	236	151
Anand	227	42	274	148	420
Kheda	233	67	302	376	477
Panch Mahals	236	134	565	337	305
Dohad	346	156	1309	274	311
Vadodara	256	104	468	174	161
Narmada	391	220	513	387	359
Bharuch	292	116	460	238	174
The Dangs	669	565	1075	901	513
Navsari	422	280	712	355	242
Valsad	355	285	675	302	272
Surat	391	166	739	399	170
Tapi	608	346	848	873	425
			Urban		
Kachchh	144	292	477	508	130
Banas Kantha	119	80	235	401	112
Patan	144	76	304	745	127
Mahesana	145	144	337	263	135
Sabar Kantha	193	148	427	429	179
Gandhinagar	167	86	295	294	160
Ahmedabad	156	143	290	497	148
Surendranagar	140	143	348	282	129
Rajkot	122	131	305	441	114
Jamnagar	135	170	399	475	120
Porbandar	157	217	497	370	135
Junagadh	149	174	383	271	126
Amreli	143	101	305	368	125
Bhavnagar	148	172	520	374	130
Anand	168	45	261	266	161
Kheda	160	56	220	311	156
Panch Mahals	134	88	342	159	127
Dohad	190	133	969	284	167
Vadodara	170	88	326	328	164

District	Main workers				
	Total	Cultivators	Agricultural labourers	Household industry	Others
Narmada	195	86	340	209	181
Bharuch	144	86	292	198	138
The Dangs	271	374	391	200	253
Navsari	221	143	558	595	209
Valsad	183	208	527	319	174
Surat	107	107	560	634	98
Tapi	264	195	672	466	242

Source: Author's calculations

Appendix Table 3
Sex ratio (Females per 1000 males) in marginal workforce (3-6 months)
in districts of Gujarat

District	Workers who were engaged in some productive activity for 3-6 months during the year preceding the census				
	Total	Cultivators	Agricultural labourers	Household industry	Others
			Total		
Kachchh	1717	2378	2717	4495	949
Banas Kantha	3329	3505	3016	2096	3808
Patan	2831	3348	3566	1208	1725
Mahesana	2175	2460	2968	2623	1577
Sabar Kantha	2676	2846	2279	3367	3310
Gandhinagar	1375	1358	1653	3000	1146
Ahmedabad	1165	1801	2311	2268	779
Surendranagar	3082	5173	3902	3184	1222
Rajkot	1899	6194	3762	2690	706
Jamnagar	1985	6813	3329	2610	684
Porbandar	1639	4102	2559	1404	582
Junagadh	3115	7696	3975	1710	835
Amreli	3808	8091	4319	2378	1020
Bhavnagar	2322	4236	4525	1695	779
Anand	1732	992	2012	1653	1525
Kheda	1667	1132	1710	2497	1732
Panch Mahals	2846	3545	2906	1618	2155
Dohad	2788	2745	3348	2257	1160
Vadodara	2058	2521	3016	1545	642
Narmada	2106	1532	2311	1950	1123
Bharuch	1278	1410	1874	1278	645
The Dangs	3149	4714	2817	3049	1320
Navsari	1545	2279	1941	1421	736
Valsad	1551	1786	2125	1597	754
Surat	1242	2067	2413	3975	706
Tapi	2125	2115	2472	2077	1053
			Rural		
Kachchh	2135	2472	2717	4556	1217
Banas Kantha	3566	3545	3032	2021	4917
Patan	3292	3444	3545	1092	2817
Mahesana	2846	2597	3016	2690	2704
Sabar Kantha	2876	2876	2289	3608	4376
Gandhinagar	1959	1519	1857	4348	2106

District	Workers who were engaged in some productive activity for 3-6 months during the year preceding the census				
	Total	Cultivators	Agricultural labourers	Household industry	Others
Ahmedabad	2289	2390	2559	1632	1475
Surendranagar	3630	5289	3975	3098	1703
Rajkot	3386	6692	4181	1899	980
Jamnagar	3425	7264	3464	2333	1066
Porbandar	2861	4319	2802	1639	1208
Junagadh	4319	8091	4208	1639	1278
Amreli	4495	8346	4348	1688	1237
Bhavnagar	3367	4464	4714	1551	1092
Anand	2077	1058	2012	2003	2584
Kheda	1874	1160	1732	3000	2559
Panch Mahals	2968	3545	2922	1740	2597
Dohad	2831	2759	3348	2472	1193
Vadodara	2704	2690	3098	1732	934
Narmada	2165	1564	2333	2175	1227
Bharuch	1532	1488	1915	1703	789
The Dangs	3274	4747	2831	3292	1778
Navsari	1703	2300	1976	1294	761
Valsad	1740	1817	2175	1564	779
Surat	1976	2333	2484	2215	984
Tapi	2247	2125	2484	2115	1294
Urban					
Kachchh	898	1646	2968	4376	721
Banas Kantha	912	1165	2067	2922	754
Patan	715	783	3630	1817	458
Mahesana	715	873	1950	2472	580
Sabar Kantha	957	1660	1747	2289	764
Gandhinagar	642	618	795	1778	577
Ahmedabad	795	1179	938	2401	721
Surendranagar	949	1841	1841	3405	773
Rajkot	721	1193	1342	3132	608
Jamnagar	692	1639	2165	2788	550
Porbandar	522	1331	1262	1212	427
Junagadh	748	1755	1857	1833	565
Amreli	1283	3444	3505	4348	789
Bhavnagar	767	1410	2367	1849	600
Anand	842	403	2106	1174	689
Kheda	634	475	1273	1012	499

District	Workers who were engaged in some productive activity for 3-6 months during the year preceding the census				
	Total	Cultivators	Agricultural labourers	Household industry	Others
Panch Mahals	704	3367	1532	605	481
Dohad	1597	2413	3587	988	876
Vadodara	572	934	855	1288	524
Narmada	1075	114	1639	898	880
Bharuch	511	513	706	639	490
The Dangs	1004	751	912	2774	773
Navsari	776	1646	1033	2096	698
Valsad	805	969	1132	1674	724
Surat	792	980	1283	4525	645
Tapi	692	629	1342	1525	605

Source: Author's calculations

Appendix Table 4
Sex ratio (Females per 1000 males) in marginal workforce (0-3 months)
in districts of Gujarat

District	Workers who were engaged in some productive activity for 0-3 months during the year preceding the census				
	Total	Cultivators	Agricultural labourers	Household industry	Others
	Total				
Kachchh	1494	3651	2584	8804	629
Banas Kantha	2096	1825	2125	1358	2322
Patan	1882	1857	2610	2003	1155
Mahesana	1475	1755	2135	2077	946
Sabar Kantha	1660	1433	1710	2135	1632
Gandhinagar	1146	1294	1882	1392	795
Ahmedabad	1070	1967	2817	2390	631
Surendranagar	2759	3566	3525	2279	1304
Rajkot	1976	3739	3032	2067	883
Jamnagar	2003	3505	2745	2690	789
Porbandar	2356	3016	3000	4236	931
Junagadh	2300	2968	2802	2165	984
Amreli	2623	2817	3032	3049	1364
Bhavnagar	2215	3274	3098	2436	984
Anand	1427	1058	1439	1146	1513
Kheda	1123	1257	1288	1747	802
Panch Mahals	1392	1681	1513	2077	825
Dohad	1451	1326	1778	1132	789
Vadodara	1427	2030	2195	1463	486
Narmada	1825	1817	2049	2378	866
Bharuch	969	1646	1232	1062	543
The Dangs	2534	1625	3673	767	799
Navsari	1309	2390	1410	2003	916
Valsad	1370	1532	1725	1203	667
Surat	1012	1632	1740	5494	661
Tapi	1584	1591	1755	1326	1041
	Rural				
Kachchh	1857	3785	2597	7850	789
Banas Kantha	2236	1833	2135	1342	2861
Patan	2311	1874	2676	1695	1882
Mahesana	1817	1778	2236	1907	1342
Sabar Kantha	1755	1439	1740	2205	2049
Gandhinagar	1463	1288	1857	1571	1092

District	Workers who were engaged in some productive activity for 0-3 months during the year preceding the census				
	Total	Cultivators	Agricultural labourers	Household industry	Others
Ahmedabad	2472	2460	3167	2521	1247
Surendranagar	3149	3608	3608	2289	1755
Rajkot	2876	3739	3098	1475	1294
Jamnagar	2413	3484	2623	1941	972
Porbandar	2817	3016	3149	3630	1342
Junagadh	2676	3000	3049	1915	1237
Amreli	2745	2817	3000	1681	1717
Bhavnagar	2623	3292	3184	2460	1008
Anand	1571	1083	1392	848	2096
Kheda	1242	1262	1232	1841	1217
Panch Mahals	1445	1681	1488	2356	961
Dohad	1445	1326	1755	1128	773
Vadodara	1950	2067	2236	1381	757
Narmada	1899	1833	2086	2460	992
Bharuch	1151	1674	1278	1119	689
The Dangs	2774	1618	3651	721	1375
Navsari	1404	2472	1433	1278	969
Valsad	1494	1532	1770	1375	709
Surat	1336	1732	1778	2311	616
Tapi	1688	1597	1740	1309	1551
			Urban		
Kachchh	672	2311	2311	10236	443
Banas Kantha	783	786	1283	1457	712
Patan	597	499	1597	2636	408
Mahesana	634	751	961	2367	534
Sabar Kantha	876	912	880	1915	842
Gandhinagar	783	1445	2012	1174	637
Ahmedabad	684	399	1024	2378	570
Surendranagar	905	1288	1762	2226	748
Rajkot	949	3049	2584	2367	745
Jamnagar	1079	4882	3926	3425	645
Porbandar	1092	3000	2135	4780	706
Junagadh	873	1618	1012	2774	736
Amreli	1695	3255	3525	10494	923
Bhavnagar	1174	1882	1924	2425	965
Anand	965	232	1959	1415	715
Kheda	645	779	2774	1364	391

District	Workers who were engaged in some productive activity for 0-3 months during the year preceding the census				
	Total	Cultivators	Agricultural labourers	Household industry	Others
Panch Mahals	616	667	4208	458	323
Dohad	1564	733	2597	1155	957
Vadodara	443	376	965	1577	397
Narmada	678	0	1075	1667	393
Bharuch	477	285	684	953	422
The Dangs	541	NA	5993	835	404
Navsari	934	232	792	5667	848
Valsad	751	1488	1132	934	603
Surat	838	608	1160	6407	669
Tapi	637	1000	3000	1558	508

Source: Author's calculations