



---

## STATISTICAL ANALYSIS OF SEX-RATIO OF SHIRDI TOWN

---

*Dr. Chandrabhan Bhanudas Chaudhari*

*Associate Professor of Geography, R. B. N. B. College, Shrirampur*

---

### INTRODUCTION:

The sex-ratio reflects the socio-economic and demographic characteristics of the population in an area so it is essential for regional analysis, but the term 'sex-ratio' defining in different countries by different ways. In some countries like Russia, it is expressed in terms of percentage of male or female population. In some countries, like the United States, a sex-ratio is calculated as the number of males per 100 females. In the Census of India, sex-ratio has been defined as the number of females per 1,000 males in the population.

### OBJECTIVE:

The basic purpose of this study is to analyse the decadal changes in different type of sex-ratio of secular tourist place.

### DATABASE AND METHODOLOGY:

The present study is entirely based on secondary data. The period of this study is limited to a 40 years commencing from 1971 to 2011. The data required for the present investigation has been collected from District Census Handbooks, Socio-Economic Survey Reports and Government Websites.

In this study, following basic formulas have been used to calculate sex-ratio and decadal changes in sex-ratio-

#### 1. Sex-ratio

$$\text{Sex-ratio} = \frac{\text{Female Population}}{\text{Male Population}} \times 1000$$

#### 2. Decadal Change in Sex-Ratio

$$\text{DCSR} = \text{Sex-ratio of Latest Census} - \text{Sex-ratio of Previous Census}$$

To determine whether any connection exists between the different type of sex-ratio and literacy of study area, correlation coefficients have been computed by Karl Pearson's Product Moment Method.

### STUDY AREA:

Sai Baba's Shirdi is a census town in Rahata tahsil of Ahmadnagar district in the Indian state of Maharashtra. It is a secular place where all castes and religions are treated as one and a belief in the power of Faith & Patience is foremost. Shirdi is situated on the Ahmadnagar-Manmad highway. It is 85 km away from Ahmadnagar City. It is best known as the 19<sup>th</sup> century home of the great saint Sai Baba. At present, it is one of the richest temple organizations and famous tourist center in India.

### GEOGRAPHICAL PROFILE OF SHIRDI:

○ <b>Coordinates</b>	Latitudinal:	19 <sup>o</sup> 44'15"N to 19 <sup>o</sup> 46'30"N
	Longitudinal:	74 <sup>o</sup> 27'45"E to 74 <sup>o</sup> 31'15"E
○ <b>Geographical Area</b>	:	13.15 Sq. km
○ <b>Average Elevation</b>	:	504 meters (1,654 ft)
○ <b>Climate</b>	Rainfall:	583.5 (in mm)
	Temperature:	Min 18.5°C and Max 33.0°C

### ANALYSIS AND DISCUSSION:

As per 2011 Census, Shirdi is the second most populous town in Rahata Tahsil of Ahmadnagar District. It has 1.73 percent of the Rahata Tahsil's total area and 11.23 percent of population. In 2011, out of the total population, 18751 were males and 17253 females. The proportions of SC and ST population were respectively 20.23% and 3.61%.

Table-1: Demographic Profile of Shirdi

Population		All		Scheduled Caste		Scheduled Tribe		Literate	
		Actual	%	Actual	%	Actual	%	Actual	%
1971 Census	M	3294	51.81	306	9.29	73	2.22	1770	53.73
	F	3064	48.19	212	6.92	280	9.14	823	26.86
	T	6358	100.00	518	8.15	353	5.55	2593	40.78
1981 Census	M	4495	51.04	581	12.93	152	3.38	2884	64.16
	F	4311	48.96	570	13.22	158	3.67	1611	37.37
	T	8806	100.00	1151	13.07	310	3.52	4495	51.04
1991 Census	M	7881	52.09	1238	15.71	337	4.28	4960	62.94
	F	7248	47.91	1221	16.85	354	4.88	3001	41.40
	T	15129	100.00	2459	16.25	691	4.57	7961	52.62
2001 Census	M	13880	53.01	2299	16.56	478	3.44	10347	74.55
	F	12304	46.99	2246	18.25	479	3.89	7478	60.78
	T	26184	100.00	4545	17.36	957	3.65	17825	68.08
2011 Census	M	18751	52.08	3731	19.90	653	3.48	14395	76.77
	F	17253	47.92	3551	20.58	646	3.74	11526	66.81
	T	36004	100	7282	20.23	1299	3.61	25921	71.99

#### A. SEX-RATIO CHANGES -

- 1. General Sex-ratio:** In 1971, Shirdi's general sex-ratio was 930, which by 1981 rose 959 and thereafter showed continuous decline until 2001. However, during the last decade (2001-11), a considerable improvement of 34 points is observed. This improvement in sex-ratio of 2011 is a welcome improvement and it is hoped that the same trend will continue in the coming decades.
- 2. Child Sex-ratio:** Except 1991 census, the child sex-ratio of shirdi is always lower than the general sex-ratio. It consistently declined drastically since 1991 from 922 to 865 in 2001 and 860 in 2011.

3. **SC Sex-ratio:** SC population Sex-ratio of Shirdi was 693 in 1971. It raised 986 in 1991, but thereafter it continuously decline. During last 20 years, it declined by 34 points.
4. **ST Sex-ratio:** At each Census since 1971, the sex-ratio of ST population in Shirdi town is always greater than the standard and general sex-ratio. But it has same declining trend since 1991. During 1991-2011, it declined by 61 points.

As per 2011 census, Shirdi town has 17 wards. Among these 17 wards, highest sex-ratio is observed in ward no 7 i.e., 1600 for ST population (Table-4). The lowest sex-ratio is observed in ward no 3 i.e., 594 for Child population. There are only two wards (viz., ward no 7 and 14) which have better situation in all type of sex-ratio. In ward no 7 and 14, the sex-ratio of all type are greater than the standard sex-ratio (952). On the contrary, ward no 5 has the worst situation in all type of sex-ratio. All sex-ratio in ward no 5 are below 875.

**Table-2: Different Sex-Ratio of Shirdi (1971-2011)**

Census	Actual Sex-Ratio			
	General	Child	Scheduled Caste	Scheduled Tribe
1971	930	-	693	3836
1981	959	-	981	1039
1991	920	922	986	1050
2001	886	865	977	1002
2011	920	860	952	989

**Table-3: Decadal Changes in Sex-Ratio of Shirdi (1971-2011)**

Decade	Change in Sex-Ratio			
	General	Child	Scheduled Caste	Scheduled Tribe
1971-81	29	-	288	-2797
1981-91	-39	-	5	11
1991-01	-34	-57	-9	-48
2001-11	34	-5	-25	-13

**B. WARD-WISE SEX-RATIO OF SHIRID IN 2011-****Table-4: Ward-Wise Different Type Sex-Ratio of Shirdi, 2011**

Ward No	Sex-Ratio			
	General	Child	SC	ST
1	896	788	922	913
2	903	710	894	1038
3	853	594	1000	877
4	1005	993	992	920
5	860	841	874	767
6	944	807	1143	400
7	978	952	988	1600
8	969	1076	972	600
9	976	897	1017	1104
10	932	793	978	1038
11	905	860	867	1333
12	895	911	905	854
13	885	867	948	910
14	957	993	989	1286
15	922	913	868	950
16	901	790	883	1167
17	918	890	1103	957
<b>Total</b>	<b>920</b>	<b>860</b>	<b>952</b>	<b>989</b>

**Table-5: No of Wards Above and Below Standard Sex-Ratio (952), 2011**

Sex-ratio	No of Wards			
	General	Child	SC	ST
<b>Below 952</b>	<b>12</b>	<b>13</b>	<b>8</b>	<b>9</b>
<b>952</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>
<b>Above 952</b>	<b>5</b>	<b>3</b>	<b>9</b>	<b>8</b>
<b>Total</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>17</b>

Table-5 reveals that in 2011, there are as many as nine wards that have SC sex-ratio of more than standard limit. This number declined to eight for ST, five for general and three for child sex-ratio. In other words, nearly 50 percent of the total wards record sex-ratio above the town averages.

All the wards of Shirdi town are classified into six categories on the basis of different type of sex-ratio in 2011 and shown in the following table-

**Table-6: Sex-Ratio Type and Category-Wise Distribution of Wards in Shirdi, 2011**

Category		Worst Sex-Ratio (Below 900)	Low Sex-Ratio (900-925)	Medium Low Sex-Ratio (926-950)	Medium Sex-Ratio (951-975)	Medium High Sex-Ratio (976-1000)	High Sex-Ratio (Above 1000)
General Sex-ratio	Ward No	1, 3, 5, 12, 13	2, 11, 15, 16, 17	6, 10	8, 14	7, 9	4
	Wards	5	5	2	2	2	1
Child Sex-ratio	Ward No	1, 2, 3, 5, 6, 9, 10, 11, 13, 16, 17	12, 15	-	7	4, 14	8
	Wards	11	2	0	1	2	1
SC Sex-ratio	Ward No	2, 5, 11, 15, 16	1, 12	13	8	3, 4, 7, 10, 14	6, 9, 17
	Wards	5	2	1	1	5	3
ST Sex-ratio	Ward No	3, 5, 6, 8, 12	1, 4, 13	15	17	-	2, 7, 9, 10, 11, 14, 16
	Wards	5	3	1	1	0	7

### C. RELATIONSHIP BETWEEN LITERACY AND SEX-RATIO -

Except the relationship between SC sex-ratio and literacy, all relationships between literacy and different type of sex-ratio are negative.

**Table-7: Correlation between Literacy and Sex-ratio (Based on 1971 to 2011 Census)**

Data Base (1971-2011)	Coefficient of Correlation	Relationship	Degree of Correlation
1 General Population and Literacy	-0.57	Negative	Moderate
2 Child Population and Literacy	-0.99	Negative	Very High
3 Scheduled Caste Population and Literacy	+0.64	Positive	Moderate
4 Scheduled Tribe Population and Literacy	-0.71	Negative	Moderate

**SALIENT FINDINGS:**

1. The changes in the different type of sex-ratio of Shirdi are the main reason for the rise of pilgrimage tourists in the recent past.
2. During 1971-2011, the general sex-ratio of Shirdi decrease by 20 points.
3. The decadal decline in child sex-ratio is greater than the general, SC and ST sex-ratio.
4. In Each Census, the ST sex-ratio is greater than the other sex-ratio (viz., general, child and SC sex-ratio).
5. Between 1971 and 2011 census, 1971 census has the lowest and highest sex-ratio value. Lowest sex-ratio observed in SC and highest in ST.
6. In 2011, highest sex-ratio in Shirdi is observed in ward no 7 i.e., 1600 for ST population and the lowest sex-ratio is observed in ward no 3 i.e., 594 for child population.
7. More than 70 percent wards in Shirdi have the worst (below 950) general and child sex-ratio in 2011.
8. Since 1991, SC, ST and child sex-ratio of Shirdi are consistently decreases.
9. Generally, the child sex-ratio of Shirdi decreases with the increasing proportion of literates.

**REFERENCES:**

1. Ahmadnagar - District Census Handbook, 1971 to 2001.
2. Bhende Asha and Kanitkar Tara (2003) Principles of Population Studies, Himalaya Publishing House, Mumbai.
3. Chandana R. C. (1996) A Geography of Population, Kalyani Publishers, New Delhi.
4. Ghosh B. N. (1987) Fundamentals of Population Geography, Sterling Publishers Private Limited, New Delhi.
5. Prasad Rajendra (1990) Population Geography of India, Radha Publications, New Delhi.
6. Sawant S. B. (1994) Population Geography, Mehta Publishing House, Pune.
7. [www.censusindia.net](http://www.censusindia.net)