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# Analysis of Work Participation Rate among Tehsils Level of Ahmednagar District of Maharashtra State

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**Abstract:** India has a large number of primary workers, so the Indian economy is highly unbalanced. Ahmednagar district is an agriculture-oriented district. This research paper is written to explore the changing pattern of work participation rate and the gender gap in the workforce among the tehsils of Ahmednagar district during 2001-2011. In the present study, the tehsils have been taken as the component areal units of the study region for determining the variation in the distribution of the workforce. The present study is entirely based on a secondary source of data collected from the census of the Ahmednagar district between 2001 and 2011. Simple statistical methods are used to process the collected data to calculate work participation rate, decadal variation, and gender gap. This paper has attempted a comprehensive study of the trends in the work participation rate tehsil level in general and male-female.

**Keywords:** Work Participation Rate, Primary Workers, Gender gap, Occupational structure.

## I. INTRODUCTION

The Occupational structure of any country or region depends largely on the development of productive forces. As long as productive forces do not develop adequately and technology does not attain superiority, the productivity of labor remains low, and, thus, a large part of the labor force slot itself in the production of food articles.

This is exactly the problem of most underdeveloped countries. This paper deals with the occupational structure of the study region and scans the changes in the workforce. Indian economy is highly unbalanced; there is a bulk of primary workers. "Work" involved not only actual work but effective supervision, or direction of work. In respect of seasonal work like cultivation, livestock keeping, plantation, some types of household industry, etc., which are not done throughout the year, a person's main activity was determined with reference to such work in the last year even if he was not economically active in the week prior to enumeration. Persons engaged primarily in their own household duties (housewives) those getting education (students) those receiving income without participating in any productive activity (pensioners, rent receivers, thieves, pick-pocketers, prisoners, beggars, etc) were classified as non-workers.

## II. OBJECTIVE

The aim of this research paper is to explore the changing pattern of the work participation rate in the tehsils of the Ahmednagar district of Maharashtra state during 2001-2011. In the present study, the tehsils have been taken as the component areal units of the study region for determining the variation in the distribution of the workforce. This paper also explores the gender gap in the workforce in the study region.

## III. DATABASE AND METHODOLOGY

The present study is mainly based on secondary data analysis. Researchers have used the Ahmednagar district Census Handbook data 2001 and 2011. All the secondary data have been collected from the District Census Handbook, District Statistical Abstract and socioeconomic Abstract. Statistical methods are used to process the collected data to calculate work participation rate, decadal variation and gender gap.

$$WPR = \frac{TW}{TP} \times 100$$

Where, WPR = Work Participation Rate, TW = Total Workers TP = Total Population

#### IV. THE STUDY AREA

Ahmednagar district has been selected for present study. The district is first in the since of geographical area (17048 sq. km.) in the state of Maharashtra. It is situated between 18° 20' and 19° 59' north latitudes and 73° 40' to 75° 43' east longitudes (Map.1). The population of the Ahmednagar district according to the 2011cesus is 4543159 with about 51.57 percent as male and 48.43 percent as female population. The density of population was 266 persons per sq. km. Administratively; Ahmednagar district consists of 14 tehsils which are mainly divided into North Ahmednagar district and president Ahmednagar district. Out of these 14 tehsils, about eight tehsils are affected by drought. The district is very dense in shape and length of 200 km. a width of 210 km. This study region is divided into there are three physical divisions namely, first Sahyadri moutons ranges, second Plateau and third plains area. The Godavari, Bhima River is the main rivers in this district with the major tributaries are Paravara, Mula, Sina, Dhora, Kukdi etc. The average annual rainfalls is 566 mm. and mean daily maximum temperatures is 39°C and mean daily minimum temperature is 11° C. In study region 71.10 percent area under cultivation area out of them 32.40 percent is irrigated and 67.60 percent rain fed or rain shadow area.

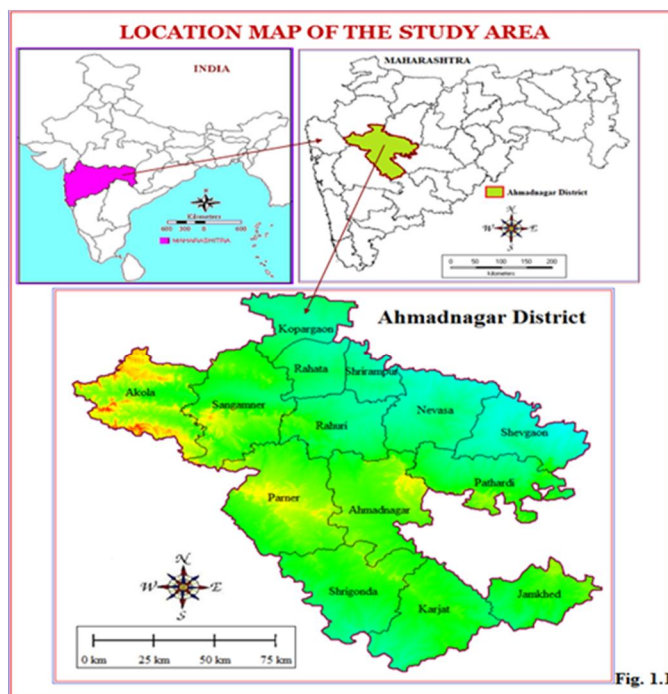


Fig. 1.1

#### V. WORK PARTICIPATION RATE {WPR}

The work participation rate 46.72 percent, in the Ahmednagar district was as per the 2001 census. Ahmednagar district had a wide variation in the work participation rate according to the 2001 census. Fifty percent of tehsils (7 Tehsils) have an above 46 percent participation rate which is higher than the district average of 46.72 percent. The work participation rate of Ahmednagar district is higher than the state average.

#### VI. WORK PARTICIPATION RATE IN THE 2001

As per the 2001 census, the average work participation rate of the study region was found 46.72 percent. The highest work participation rate was found in the Parner tehsil it is 53.05 percent and the lowest was found in the Nagar tehsil at 38.68 percent. It is found that there are three tehsils, like Akola (51.84 %), Parner (53.05 %), and Shrigonda (50.05 %) observed with more than 50.00 percent work participation rate. Whereas, Shevgaon (49.13 %), Pathardi (48.28 %), Rahuri (49.96 %), and Karjat (47.65 %) tehsil's denoted the high work participation rate (Table 2 and Fig 3). Further, in the four tehsil viz. Sangamner (46.31 %), Kopargaon (44.14 %), Nevasa (46.58 %) and Jamkhed (46.01 %) fall in the category of the moderate work participation rate. Rahata (42.37 %) tehsil was found to remain in the low work participation rate category, while Shirampur and Nagar tehsil remained observed with below 41.00 percent of work participation rate, i.e. 40.01 percent, 38.68 percent respectively. The overall work participation rate in the study region was dependent on various physical, social, economic, and demographic factors. There was a significant variation in work participation rates among the tehsil's of the district.

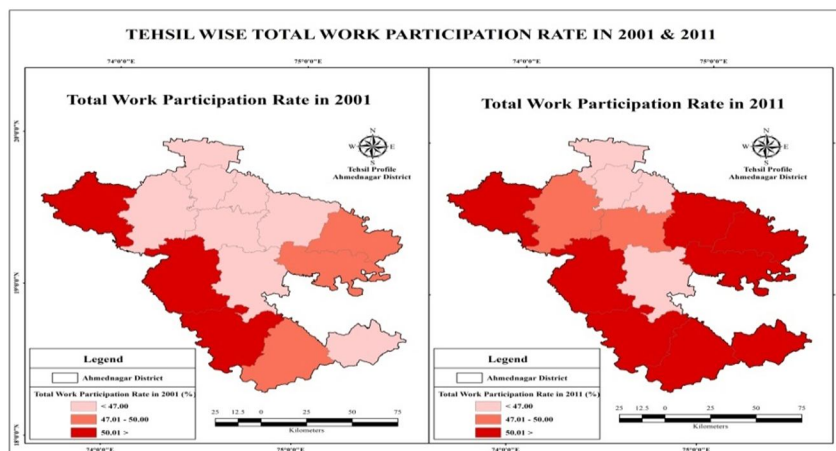


Table: 1. Work Participation Rate in the Tehsils of Ahmednagar District 2001

Sr. No.	Category	Range	No. of Tehsils	Name of the Tehsils
1	High	Above 50%	03	Akola, Parner, Shrigonda
2	Moderate	47 to 50	04	Shevgaon, Pathardi, Rahuri, Karjat
3	Low	Below 47	07	Sangamner, Kopargaon, Nevasa, Jamkhed, Rahata, Shrirampur, Nagar,

Source: Calculated District Census Handbook of Ahmednagar, 2001.

### VII. WORK PARTICIPATION RATE IN THE 2011

Table 2 as well as Fig. 3 shows the spatial patterns of the work participation rate in general in the study area during 2011. It is noticed that there remains a wide spatial variation in the overall work participation rate at the tehsil level. In the study region, the average work participation rate was 46.72 percent according to the 2001 census, while it increases to 49.40 percent in the year 2011. Hence, the total work participation rate increased by 2.68 percent during the decades of 2001-2011. The total work participation rate is highest in the Parner tehsil (54.84 %), while lowest in the Nagar tehsil (41.52 %). In fact, in Parner tehsil workers migrated towards Pune and Mumbai for working purposes, and also most of the workers are engaged in agriculture due to industrially less developed and drought-prone regions. In Nagar tehsil, we found people are employed in various government offices, schools, colleges, banks, hospitals, and other services due to their urban and industrial nature.

Table: 2. Work Participation Rate in the Tehsils of Ahmednagar District 2011

Sr. No.	Category	Range	No. of Tehsils	Name of the Tehsils
1	High	Above 50%	08	Akola, Parner, Shrigonda, Nevasa, Shevgaon, Pathardi, Karjat, Jamkhed,
2	Moderate	47 to 50	02	Sangamner, Rahuri,
3	Low	Below 47	04	Kopargaon, Rahata, Shrirampur, Nagar,

Source: Calculated District Census Handbook of Ahmednagar, 2011

There are a total of eight tehsils, like Akola (52.79%), Nevasa (50.54 %), Shevgaon (51.12 %), Pathardi (52.10 %), Parner (54.84 %), Shrigonda (54.35 %), Karjat (54.01 %) and Jamkhed (51.11 %) observed with the very high level of work participation rate, which is above 50.00 percent. It is noticed that the total work participation rate is at a comparatively higher level in those tehsils located in hilly and drought-prone regions than in those tehsils located in the plain and irrigated area. There are two tehsil, viz. Sangamner (48.97 %) and Rahuri (47.22%), observed a moderate level of work participation rate, which ranged from 47.00 percent to 50.00 percent. There are again four tehsils, namely Kopargaon (45.50 %) and Rahata (44.33 %), Shrirampur (43.15 %), and Nagar (41.52 %) observed with a low level of the work participation rate. There are three tehsils identified with a high work participation rate in 2001, while eight tehsils are identified with the same category in 2011. It clearly indicates that there is an increase in the overall work participation rate in 2011 over 2001.

Table 1. Ahmadnagar District: Total Work Participation Rate 2001-2011

Sr. No.	Name of Tehsil	Work Participation Rate							
		WPR 2001	WPR 2011	Female 2001	Male 2001	GAP (M-F)	Female 2011	Male 2011	GAP (M-F)
1	Akola	51.54	52.79	49.57	54.05	1.48	50.51	55.02	4.51
2	Sangamner	46.31	48.97	41.17	51.17	10.00	42.92	54.67	11.75
3	Kopargaon	44.14	45.50	36.04	51.67	15.63	35.82	54.62	18.80
4	Rahata	42.37	44.33	32.22	51.89	19.67	32.51	55.44	22.93
5	Shrirampur	40.01	43.15	27.73	51.66	23.93	30.76	55.07	24.31
6	Nevasa	46.58	50.54	39.57	53.14	13.57	44.43	56.25	11.82
7	Shevgaon	49.13	51.12	45.50	52.59	7.09	46.80	55.23	8.43
8	Pathardi	48.28	52.10	46.50	49.96	3.46	50.40	53.68	3.28
9	Nagar	38.68	41.52	24.39	51.55	27.16	27.59	54.48	26.89
10	Rahuri	46.96	47.22	43.91	55.60	11.69	37.90	55.93	18.03
11	Parner	53.05	54.84	51.81	54.29	2.48	52.74	56.84	4.10
12	Shrigonda	50.05	54.35	44.77	54.99	10.22	50.52	57.84	7.32
13	Karjat	47.65	54.01	41.40	53.48	12.08	49.88	57.88	8.00
14	Jamkhed	46.01	51.11	40.56	51.94	11.38	45.58	57.79	12.21
	Total	46.72	49.40	46.51	52.66	6.15	49.20	56.21	7.01

Source: District Census Handbook of Ahmednagar, 2001-2011.

Male WPR in the DHQs of Rajasthan 2001: In census 2001 more than 20 percent DHQs have low percentage of male WPR whereas about 40 percent DHQs have high male WPR. Table- 3 shows that out of 32 DHQs twelve (37.5 percent) DHQs have high WPR of more than 48 percent. DHQ Bhilwara has recorded highest WPR of 52.5 percent followed by Ganganagr(51.77), Jaisalmer(51.22), Chittorgarh(50.87), Udaipur(49.32), Rajsamand(49.07), Pali(49), Dungerpur(48.63), Jodhpur(48.45), Hanumangarh(48.44) and Barmer(48.43). Low WPR has been experienced by seven (21.9 percent) DHQs. DHQ Jhunjhunun has recorded lowest WPR of 40.07 percent followed by Dhaulpur (42.3), Karauli (42.36), Churu (42.55), Dausa(43.06), Sikar(43.35) and Bharatpur(43.65). Rest of the thirteen (40.6 percent) DHQs have recorded moderate participation rate (44-48 percent). This category varied from maximum of 47.9 percent WPR in DHQ Bikaner to a minimum of 44.65 percent in DHQ Sawai Madhopur. Figure 1.d shows that male work participation rate declines from south-western to north eastern parts of the state.

Male WPR in the DHQs of Rajasthan 2011: In census 2011 more than 60 percent DHQs have WPR of above 50 percent and 35 percent DHQs have WPR of less than 50 percent. According to Table-5 more than 52 percent male WPR has been observed in eleven (33.3 percent) DHQs out of 33 DHQs. Highest WPR has been recorded in DHQ Jaisalmer of 55.93 percent followed by Bhiwara(54.54), Ganganagar(54.4), Pratapgarh(54.34), Udaipur(53.98), Chittorgarh(53.78), Hanumangarh(52.73), Pali(52.65), Jodhpur(52.37), Bikaner(52.12) and Bundi(52.01). Low WPR has been displayed by twelve DHQs. Lowest male WPR has been recorded in DHQ Dhaulpur of 44.82 percent followed by Dausa(45.46), Jhunjhunun(45.69), Karauli(45.78), Bharatpur(46.29), Sawai madhopur(48.02), Sikar(48.27), Churu(48.38), Nagaur(48.78), Jalor(49), Sirohi (49.51) and Tonk (49.5). Moderate WPR (50-52 percent) includes ten (30.3 percent) DHQs. DHQs of western half state has high male WPR and eastern half of the state has low WPR (Figure 1.e).

### VIII. CONCLUSION

The present study shows that the trend of overall work participation rate has increased in the study region Ahmednagar district state of Maharashtra since 2001. The increasing trend of male and female work participation has been observed at the district level in 2011 over 2001. It is important to note that the gap in the general work participation rate has grown up by 2.68 percent at the district level. The male work participation rate is much more than the female work participation rate. In the study region, it was found that the gap between male and female work participation rates remained lower than the state as well as national average from 2001 to 2011. It is noticed that the overall work participation rate of the study region increased from 2001 to 2011. It is also noticed that the lowest female dependency was observed at the district level during the study period.

It is found that the study region of the district has a slightly increasing trend of male and female work participation rates. There has been found considerable spatial variation in total and male-female work participation rates in the study region in the census year 2001-2011. The average work participation rate increased from 46.72 percent in 2001 to 49.40 percent in 2011, whereas male and female work participation rate also increased from 52.66 percent and 46.51 percent in 2001 to 56.21 percent and 49.20 percent in 2011, which clearly show that in the study region, the average male work participation rate was considerably higher than the female work participation rate during the study period. In other words, females are much lagging behind as compared to males with respect to the work participation rate in all the tehsils. The male-female disparity in work participation was high in the developed tehsils; on the other hand, it was low in the drought-prone and less developed tehsil. That means females of a less developed part are comparatively more employed than the females of the developed part of the study region. It is noticed that tehsils in the northern part of the district are comparatively more industrialized, urbanized, and agriculturally developed, which experiences more disparities in male-female work participation rate than the tehsils of the southern part.

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