
Patterns of Work Dependency in Chamarajanagar District: A Geographical Analysis Chandrakala M.

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ABSTRACT:

The quality and quantity of the labour force are fundamental determinants of a country's economic, social, cultural, and political development. However, the composition and efficiency of the workforce are not uniform across the globe; they vary spatially and temporally. The study of work dependency is therefore essential for understanding and fostering the socio-economic development of a region. In demographic studies, the terms working population and economically active population are often used interchangeably.

This study attempts to analyse the crude work participation rate across various taluks of Chamaraja nagar district over different time periods, focusing on the spatial patterns and temporal trends of work participation. These variations have been effectively represented through thematic maps to provide a comprehensive geographical perspective.

KEYWORDS:

Crude Work Participation Rate, Work Dependency Ratio, Main Workers,
Marginal Workers.

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Introduction

The population of a country is considered a vital component of its human resources, as it functions both as a producer and a consumer of goods and services. However, not all individuals contribute equally to production. Children, elderly individuals, and some differentlyabled persons are generally unable to engage in productive economic activities. Those who can participate in the production of goods and services constitute the active human resource of any region.

The population is commonly divided into dependent and independent groups. It can also be classified as economically active (workers) and

economically inactive (non-workers). The relationship between workers and non-workers is expressed as the dependency ratio, which indicates the number of non-workers per worker. A high dependency ratio reflects various socio-economic challenges, such as increased pressure on the working population to support dependents. In contrast, a low dependency ratio signifies greater work opportunities and higher economic activity within the population.

However, the dependency ratio has certain limitations. The distribution of children and older people is not uniform across regions, and the inclusion of students attending schools and colleges can also create imbalances in this ratio. Despite these limitations, the dependency ratio remains an important indicator for understanding the socio-economic status and workforce potential of a population.

Study Area

Chamarajanagar district was formed in 1997, following its separation from the erstwhile Mysore district. The newly created district comprises the taluks of Chamarajanagar, Gundlupet, Kollegala, and Yelandur. It consists of 16 hoblis, 130 Grama Panchayats, 433 inhabited villages, and 81 uninhabited villages, covering a total area of 5, 671. 71 km². Geographically, the district extends from 11°35' to 12°18' North latitude and 76°43' to 77°46' East longitude. Among the taluks, Kollegala is the largest, encompassing 2, 785. 82 km², while Yelandur is the smallest, with an area of 266. 34 km². According to the 2011 Census, the district has a population of 1, 020, 791, representing 1. 67% of Karnataka's total population and ranking 28th among the state's districts. The sex ratio of the district is 993 females per 1000 males, with Gundlupet taluk recording the highest ratio (1008 females per 1000 males) and Kollegala taluk the lowest (973 females per 1000 males). The sex ratio is slightly higher in urban areas (1003) compared to rural areas (991). The district's literacy rate stands at 61. 43%, placing it 28th in the state rankings. The highest literacy rate in the district is recorded in Kollegala taluk (63. 63%), while the lowest is in Chamarajanagar taluk (59. 96%). According to the 2011 Census, the overall male literacy rate in the district is 67. 93%, and the female literacy rate is 54. 92%. Geographically, the district is bordered by Mandya, Mysuru, and Bangalore (Rural) districts to the north and northwest, Tamil Nadu state to the east and south, and Kerala state to the southwest and west.

rate (25.72%) compared to other taluks, but its urban population growth rate declined sharply (-49.70%).

In the following decade (1981), the population growth rate increased significantly across all taluks, with the district witnessing over a 9% growth. The highest growth was observed in urban areas. Yelandur, which had a negative urban growth rate in the previous decade, now recorded a growth of +30.75%, with its urban population increasing from 5,132 to 6,710. Kollegala taluk, on the other hand, recorded a 25.79% urban growth rate, slightly lower than in the previous decade, while its rural population grew by 21.96% (Table 1).

Table 1, Trends of Population growth rate (%) in Chamarajanagara District (1971 – 2011)

Sl No	YEA R	Rural	TALUKS				District
			Urban	Chamrajanagara	Gundlupete	Kollegala	
1	1971	Rural	16.59	17.56	10.69	25.72	15.52
		Urban	27.18	25.66	26.66	-49.7	15.39
		Total	17.93	18.37	12.72	8.6	15.5
2	1981	Rural	18.52	19.7	32.65	25.17	23.87
		Urban	30.1	35.43	25.79	30.75	29.58
		Total	20.1	21.36	31.67	25.76	24.6
3	1991	Rural	14.56	15.37	12.46	17.08	14.23
		Urban	10.09	19.71	31.82	14.75	19.86
		Total	13.9	15.88	15.1	16.82	14.98
4	2001	Rural	3.83	8.7	10.6	8.42	7.61
		Urban	36.08	10.21	10.52	11.49	19.72
		Total	8.44	8.88	10.58	8.75	9.3
5	2011	Rural	3.94	4.4	1.9	6.53	3.56
		Urban	15.38	6.7	29.67	2.26	18.15
		Total	5.99	4.69	6.24	6.06	5.8

Source: Mysore District Gazetteer (1986) District at a Glance (2011).

During 1991, the population growth rate in the district declined significantly (-9.62%), affecting all taluks in both rural and urban areas. This declining trend continued in the 2001 census as well. In rural areas, the growth rate decreased from 14.23% to 7.61%. Chamarajanagara taluk showed a sharper decline in rural population growth (-10.73%) compared

to the previous decade. However, the same taluk experienced a remarkable increase in urban population growth, rising from 10. 09% to 36. 08%. Between 1991 and 2001, the urban population in Chamarajanagara taluk increased by about 16, 000, likely due to Chamarajanagara town becoming the district headquarters in 1997.

By 2011, the district's overall population growth rate further declined to 5. 80%, a decrease of 3. 5% compared to 2001. All taluks continued to show a declining trend during 2001–2011 (Table 1). Nevertheless, Kollegala town recorded an increase in urban population growth, rising from 10. 52% to 29. 67% during this period. These variations are illustrated in

Work Dependency Ratio:

According to the Census of India, the term work is defined as “participation in any economically productive activity, with or without compensation, wages, or profit.” It also includes supervision and direction provided to other workers. The concept of work was first introduced in the Indian census in 1961. By 1981, the Census of India classified workers into two categories:

Main Workers: A person who has been engaged in any economically productive activity for more than six months during the previous year is classified as a main worker.

Marginal Workers: A person who has worked for less than six months during the previous year is classified as a marginal worker. During the 1981 and 1991 censuses, workers were categorized into nine groups: cultivators, agricultural laborers, livestock, forestry, fishing, hunting, plantation and orchard activities, mining and quarrying, manufacturing and repairs, household industries (other than household industries), construction, trade and commerce, transport, storage and communication, and services. In the 2001 and 2011 censuses, workers were grouped into four categories: cultivators, agricultural laborers, household industrial workers, and other workers.

The work dependency ratio can be calculated by combining main and marginal workers using the following formula:

$$\text{Work Dependency Ratio} = \frac{\text{A Number of Non - workers}}{\text{Number of Workers}} \times 100$$

Using this formula, the dependency ratio has been computed as shown in Table 2 and classified into three categories:

1. Low Dependency Ratio: < 125%
2. Moderate Dependency Ratio: 126%–150%
3. High Dependency Ratio: > 150%

Low Dependency Ratio: A low dependency ratio is defined as fewer than 125 non-workers dependent on 100 workers. In 1991, low dependency was observed among males across all taluks of the district, with the district's average male dependency ratio at approximately 67.57%. In rural areas, the male dependency ratio was lower compared to urban areas. Specifically, Gundlupete, Yelandur, and Kollegala taluks exhibited low dependency in rural regions, while the highest dependency was recorded in all urban areas, particularly in Chamarajanagara and Kollegala towns.

Over the next 20 years, the dependency ratio showed little change across the district. Except for Yelandur taluk, all other taluks maintained a low dependency ratio. In rural areas, Gundlupete, Kollegala, and Chamarajanagara continued to have low dependency, whereas Yelandur recorded a moderate level. It was observed that male dependency further declined in both rural and urban areas during this period.

Moderate Dependency Ratio: A moderate dependency ratio is defined as 126 to 150 non-workers dependent on every 100 workers (126–150%). In 1991, the district recorded a moderate dependency ratio of 127.81%. During this period, Chamarajanagara and Kollegala taluks had a moderate dependency ratio, while the remaining taluks exhibited low dependency.

By 2011, the district's overall dependency ratio had declined to 111.92%, indicating low dependency. Yelandur remained the only taluk with a moderate dependency ratio in both rural and urban areas, while all other taluks showed a significant reduction, maintaining a low dependency ratio (Table 2).

Table. 2, Dependency Ratio (%) between 1991 and 2011 among the Taluks in

SL NO	TALUKS	Rural Urban	1991			2011		
			Male	Female	Total	Male	Female	Total
1	Chamarajanagara	Rural	63.99	301.45	130.90	53.20	230.09	199.37
		Urban	101.54	849.01	222.00	73.06	467.19	165.83
		Total	68.99	336.48	140.62	56.70	259.52	118.43
2	Gundlupete	Rural	54.64	177.86	100.78	49.46	186.64	96.72
		Urban	93.03	541.92	193.49	72.60	435.95	151.47
		Total	61.31	198.30	108.84	52.02	204.46	103.05
3	Kollegala	Rural	67.07	238.67	121.25	60.29	162.52	98.25
		Urban	96.65	586.37	200.58	70.32	417.76	156.14
		Total	70.70	264.90	129.84	62.09	190.12	107.17
4	Yelandur	Rural	65.95	225.42	118.39	61.47	310.84	131.43
		Urban	83.02	516.44	174.41	68.53	327.17	141.65
		Total	67.67	242.20	123.27	62.19	312.53	132.48
DISTRICT		Rural	63.72	230.13	119.17	53.38	198.65	104.11
		Urban	96.77	646.92	204.82	71.68	222.08	159.99
		Total	67.57	265.68	127.81	57.94	223.17	111.92

Source: Mysore District Gazetteer, (1986) District at a Glance (2011).

High Dependency Ratio: A high dependency ratio occurs when more than 150 non-workers depend on every 100 workers. In 1991, all urban areas of the taluks exhibited a high dependency ratio, with the district average at 204. 82%. The highest urban dependency was observed in Chamarajanagara town at 222. 0%. Female dependency in all taluks also fell into this category, with the district average at 646. 92%, and Chamarajanagara urban area recording the highest female dependency at 849%.

By 2011, except for Yelandur, all other urban areas continued to have a high dependency ratio, though it had significantly declined from 204. 82% to 159. 99% over the 20-year period. A significant reduction was also observed in female dependency, dropping from 646. 92% to 222. 08%,

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Conflict of interest:

The Authors have no conflict of interest to declare that they are relevant to the content of this article.

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