

Assessment of marginal workers in Tamilnadu

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Analysis:

- As per data from <https://tn.data.gov.in/catalog/marginal-workers-classified-age-industrial-category-and-sex-census-2011-india-and-states> ,the first classification of the working population is based on full time workers and part time workers. Full time working population is called Main Working Population and part time working population is called Marginal Working Population.

- The Main working population works mainly throughout the year, according to the labour force Indian District Database the workers who worked for more than 183 days in a year comes under this category.

- While the Marginal Working population do not work through the entire year but works on the seasonal basis or on a particular periods of year only. Marginal workers were those who worked any time at all in the year preceding the enumeration but did not work for a major part of the year, i.e., those who worked for less than 183 days (or six months).

- The main working population is further classified in to the following:

v **Cultivators:** A person was considered as cultivator if he or she was engaged either as employer, single worker or family worker in cultivation of land owned or held from government or held from

private persons or institutions for payment in money, kind or share of crop. Cultivation included supervision or direction of cultivation. A person who had given out his/her land to another person or persons for cultivation or money, kind or share of crop and who did not even supervise or direct cultivation of land was not treated as cultivator. Similarly, a person working in another person's land for wages in cash or kind or a combination of both was not treated as cultivator. Cultivation involved ploughing, sowing and harvesting and production of cereals and millet crops such as wheat, paddy, jowar, bajra, ragi, etc., and pulses, raw jute and kindred fibre crop, cotton, etc., but did not include fruit growing, vegetable growing or keeping orchards or groves or working on plantations like tea, coffee, rubber, cinchona and other medicinal plantations.

v **Agricultural Labors:** A person who worked in another person's land for wages in cash, kind or share was regarded as an agricultural labourer. Such a person had no risk in cultivation but merely worked in another person's land for wages. An agricultural labourer had no right of lease or contract on land on which he worked.

v **Household Industry Worker:** A man who engaged primarily in one's own household duties or a boy or a girl who was primarily a student, even if such a person helped in the family economic activity but not as full time worker was not treated as worker. On the other hand, if a person was primarily engaged in some economic activity for major part of the year but at the same time also attended to some household chores or attended a night school etc., he or she was treated basically as a worker. In short we can say that any activity or work which is carried out from the home itself and generating income from the same can be classified as Household worker.

v **Other Working Population:** The Main Working Population involved in the other type of employment which are mentioned above.

Analysis Approach

To achieve the project objectives, we will follow a systematic analysis approach:

- **Data Collection:**
 - Obtain the dataset containing information about marginal workers in Tamil Nadu. The dataset should include variables related to age, gender, and industrial category. Government websites provide a dataset
 - Dataset link: <https://tn.data.gov.in/catalog/marginal-workers-classified-age-industrial-category-and-sex-census-2011-india-and-states>.
- **Data Cleaning:**
 - Clean and preprocess the dataset to handle missing values, outliers, and inconsistencies. Ensure that the data is in a format suitable for analysis.
- **Exploratory Data Analysis (EDA):**
 - Perform EDA to gain initial insights into the dataset. This may involve summary statistics, data visualization, and identifying any patterns or correlations.
- **Demographic Analysis:**
 - Analyze the demographic characteristics of marginal workers. Calculate basic statistics, such as mean and median ages, and create visualizations (e.g., histograms) to visualize the age distribution.
- **Gender Analysis:**
 - Examine the gender distribution using appropriate charts, such as pie charts or bar graphs. Calculate gender ratios and assess any gender-related disparities in employment.
- **Industrial Category Analysis:**
 - Explore the industrial categories in which marginal workers are employed. Use visualization techniques

(e.g., bar charts, stacked bar charts) to represent the distribution across sectors.

- **Socioeconomic Analysis:**
 - Perform deeper analysis to understand the socioeconomic implications of the findings. This may involve comparing age and gender distributions across industrial categories and drawing conclusions about employment patterns.
- **Visualization Selection:**
 - Select appropriate visualization types for each analysis component. For example, use bar charts or pie charts for gender distribution and histograms for age distribution.
- **Python and Data Visualization Libraries:**
 - Implement the analysis and visualization using Python and relevant libraries such as Pandas, Matplotlib, Seaborn, or pyPlot.

Visualization Selection

The appropriate selection of visualization types is crucial for effectively communicating insights. Presented below are some initial recommendations for visualization types:

Age Distribution:

Histograms: These can be utilized to visually represent the distribution of ages.

Box plots: These can be employed to identify any outliers and provide a summary of statistics pertaining to age distribution.

Gender Analysis:

Pie charts: These can be used to depict the distribution of genders as a percentage.

Bar charts: These can be employed to compare the number of male and female marginal workers.

Industrial Category Analysis:

Stacked bar charts: These can be utilized to illustrate the distribution of marginal workers across various industrial categories.

Heatmaps: These can be employed to visually represent any correlations between age, gender, and industrial categories.

Objectives of the Project

Demographic Analysis:

The primary objective of this project is to gain insights into the demographic characteristics of marginal workers in Tamil Nadu. This includes analyzing their age distribution, gender distribution, and the distribution of workers across different industrial categories.

Age Distribution Analysis:

Another objective of this project is to understand the age distribution of marginal workers in order to identify trends and variations among different age groups.

Gender Analysis:

The project also aims to examine the gender distribution of marginal workers and assess if there are any disparities in employment based on gender.

Conclusion:

My output and code will show the relationship between a data set, that is, the data analyzed in district code wise.