

MARGINAL WORKERS TAMILNADU

INTRODUCTION

Marginal workers are individuals in the labor force who have limited or irregular employment, often characterized by low wages, unstable job prospects, and generally precarious working conditions. They are typically at the fringes of the formal labor market and face challenges in securing stable and decent employment. Here are some key characteristics and aspects of marginal workers.



SITUATIONS FACED BY MARGINAL WORKERS

1. **Low Income:** Marginal workers typically earn very low wages, often below the minimum wage, and may struggle to make ends meet. Their low income can lead to poverty and economic insecurity.
2. **Job Insecurity:** These workers often have unstable and temporary employment, which can include part-time, contract, or casual work. This lack of job security can make it difficult for them to plan for the future and maintain a stable lifestyle.
3. **Lack of Benefits:** Marginal workers often lack access to employee benefits, such as health insurance, retirement plans, paid leave, and other forms of social security. This leaves them vulnerable to financial shocks and health crises.
4. **Limited Education and Training:** Many marginal workers have limited access to education and vocational training, which can restrict their ability to secure better-paying and more stable employment. This lack of skill development can perpetuate their economic disadvantage.
5. **Gender and Minority Disparities:** Marginal workers can disproportionately include women, minorities, and other disadvantaged groups who face additional challenges and discrimination in the labor market.
6. **Informal or Unregulated Work:** They may work in the informal or unregulated sector of the economy, which often lacks labor protections, including minimum wage laws and workplace safety regulations. This exposes them to exploitation and unsafe working conditions.
7. **Geographic Mobility:** Some marginal workers may be migrants who move to different regions or countries in search of employment. They may face challenges related to displacement, social integration, and discrimination.
8. **Vulnerability to Economic Shocks:** Marginal workers are more susceptible to economic downturns, such as recessions, as they may not have savings or job security to withstand job losses or reduced hours.
9. **Lack of Union Representation:** Many marginal workers are not unionized or have limited collective bargaining power, which can further hinder their ability to negotiate for better wages and working conditions.
10. **Social Exclusion:** Marginal workers may experience social exclusion and stigma due to their economic circumstances, which can have adverse effects on their mental and emotional well-being.

Age and Gender

We'll analyze the age and gender distribution of marginal workers to identify any patterns or gaps that exist.

Industrial Categories Comparison

We'll compare the employment trends of different industrial categories to understand their growth and opportunities.

Occupational analysis

Explore the types of occupations and industries in which marginal workers are more prevalent. Assess the working conditions and job opportunities in these sectors.

Data collection

Collect relevant data from various sources, such as government surveys, research studies, labor market reports, and organizational data. Ensure that your data is representative and up to date.

Data Cleaning and Preprocessing

- Clean and preprocess the data to handle missing values, outliers, and inconsistencies. This may involve data imputation, standardization, and data transformation as needed.

```
%matplotlib inline
import numpy as np # linear algebra
import pandas as pd # data processing, CSV file I/O (e.g. pd.read_csv)
import matplotlib.pyplot as plt
import datetime
import os
from math import sqrt
import warnings

## For Multiple Output in single cell
from IPython.core.interactiveshell import InteractiveShell
InteractiveShell.ast_node_interactivity = "all"
warnings.filterwarnings('ignore')

out_geo = pd.read_csv("C:\\Users\\S.Albert Simion\\
OneDrive\\Desktop\\IBM\\DDW_B065C_3300_State_TAMIL_NADU-2011.CSV")
out_geo.shape
out_geo.head()
```

[9]: (594, 69)

[9]:

	Table Code	State Code	District Code	Area Name	Total/ Rural/ Urban	Age group	Worked for 3 months or more but less than 6 months - Persons	Worked for 3 months or more but less than 6 months - Males	Worked for 3 months or more but less than 6 months - Females	Worked for less than 3 months - Persons	...	Industrial Category - N to O - Females	Industrial Category - P to Q - Persons	Industrial Category - P to Q - Males	Industrial Category - P to Q - Females	Industrial Category - R to U - HHI - Persons	Industrial Category - R to U - HHI - Males	Industrial Category - R to U - HHI - Females
0	B0806SC	`33	`000	State - TAMIL NADU	Total	Total	1200828	589003	611825	221386	...	3565	11080	4019	7061	16833	4266	12567
1	B0806SC	`33	`000	State - TAMIL NADU	Total	`5-14	27791	14125	13666	2447	...	11	122	71	51	427	169	258
2	B0806SC	`33	`000	State - TAMIL NADU	Total	15-34	514340	259560	254780	92423	...	1754	7536	2718	4818	8346	2127	6219
3	B0806SC	`33	`000	State - TAMIL NADU	Total	35-59	542581	251957	290624	99202	...	1619	3205	1131	2074	6591	1487	5104
4	B0806SC	`33	`000	State - TAMIL NADU	Total	60+	115103	62833	52270	27165	...	175	211	93	118	1457	483	974

5 rows × 69 columns

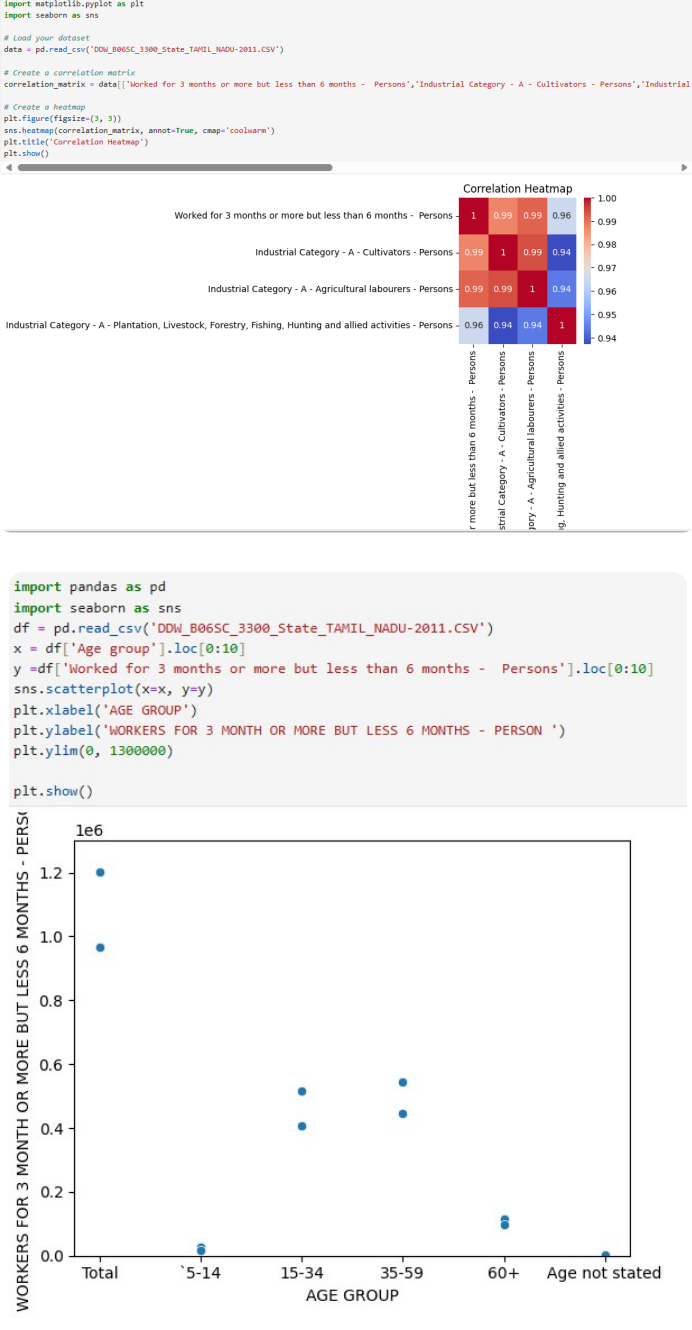
Data Visualization

Data Extraction

First, let's extract and load the dataset into a Pandas DataFrame. Make sure to have the Pandas library installed. Unleash the power of visual storytelling by incorporating captivating visualizations into your analysis. Learn how to create bar charts, scatter plots, and interactive maps to bring your data to life. Engage your audience and make meaningful connections.

Data Preprocessing

Now, we'll preprocess the data to prepare it for visualization. Preprocessing can include cleaning, filtering, and aggregating the data. Leave a lasting impact with your data-driven conclusions. We group the data based on age and working periods, then create a stacked bar chart to visualize the count of workers in different age groups for each working period.



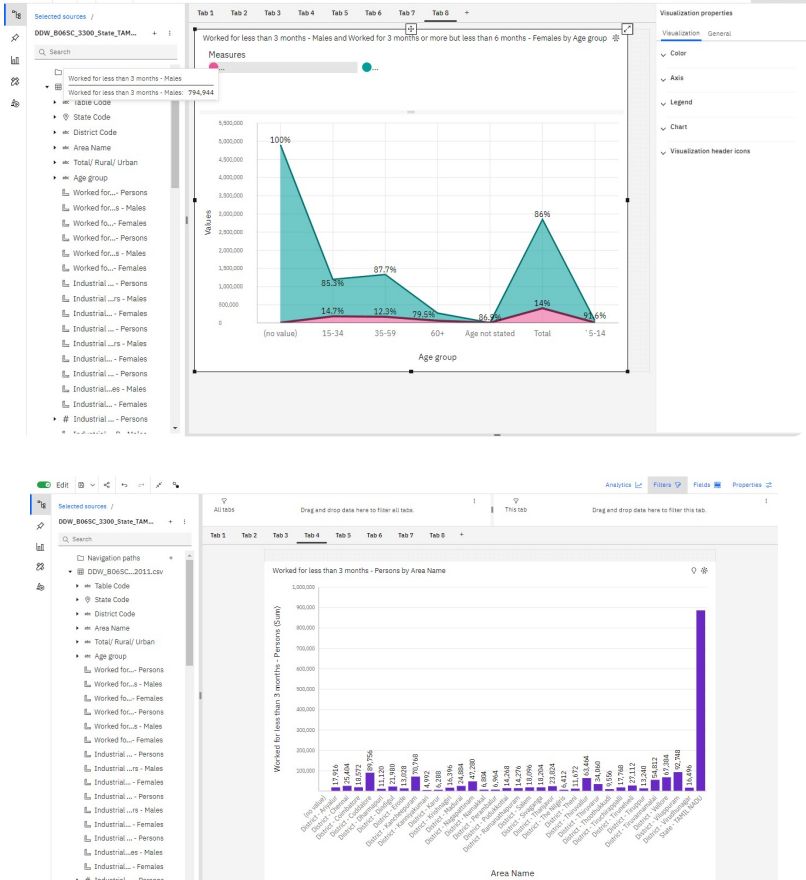
IBM COGNOS IN DATA ANALYTICS

IBM Cognos is a business intelligence and performance management software suite that is used in data analytics and reporting. It provides a range of tools and features for gathering, analyzing, and presenting data to help organizations make informed decisions. Here's how IBM Cognos is used in data analytics

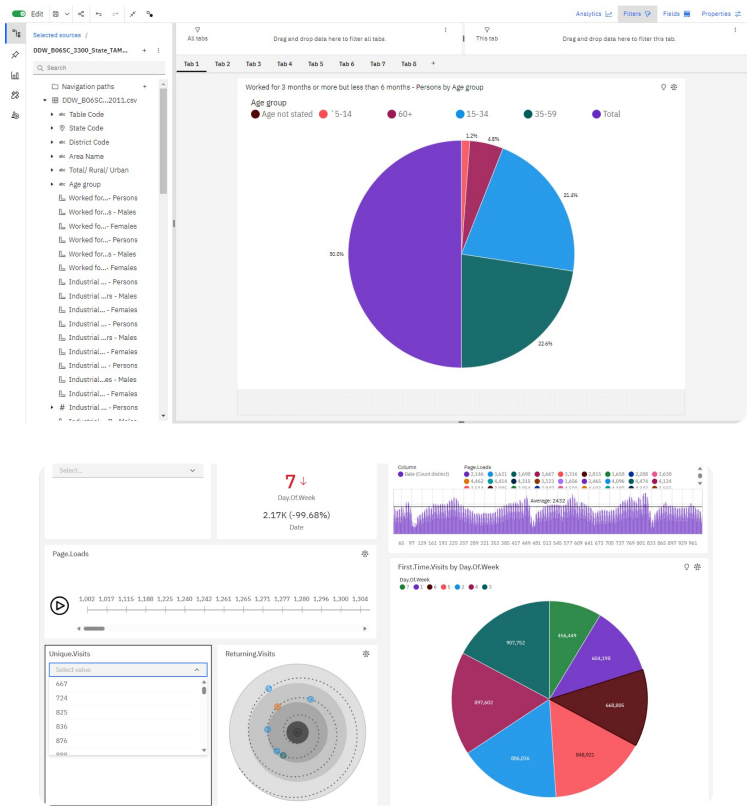
1. Data Integration: IBM Cognos can connect to various data sources, including databases, spreadsheets, cloud-based data, and more. It allows users to consolidate and integrate data from different sources into a unified view for analysis.
2. Data Modeling: Cognos provides tools for data modeling and transforming raw data into a structured format suitable for analysis. Users can create data models and define relationships between data elements.
3. Report Authoring: With Cognos, users can create interactive reports and dashboards. It offers a user-friendly interface for designing reports and customizing the layout, formatting, and visualizations to convey insights effectively.

Data Exploration and Analysis: Cognos enables users to explore data through various tools, such as ad-hoc querying and interactive dashboards. Users can drill down into data, apply filters, and perform what-if analysis.

DASHBOARDS (COGNOS)



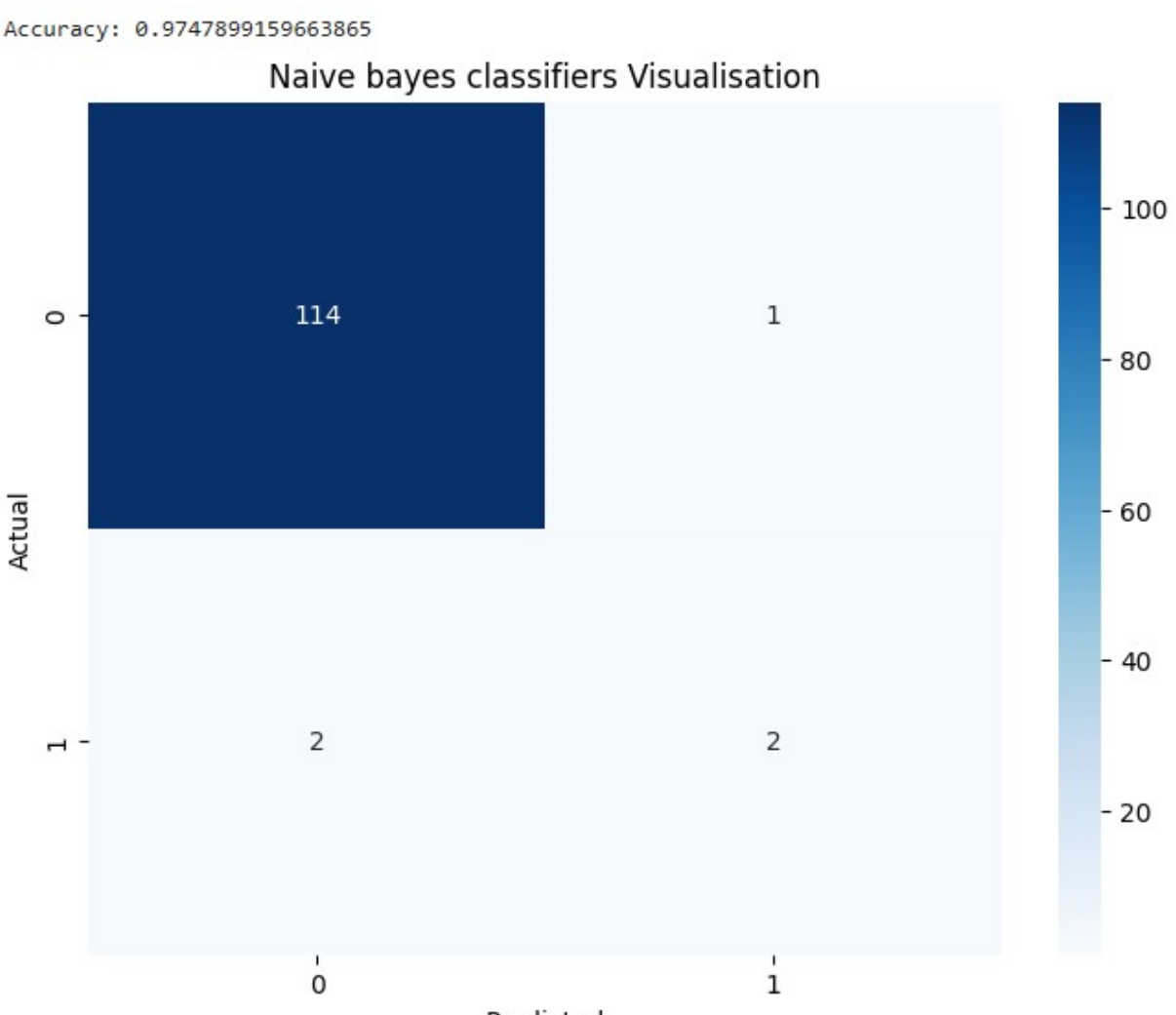
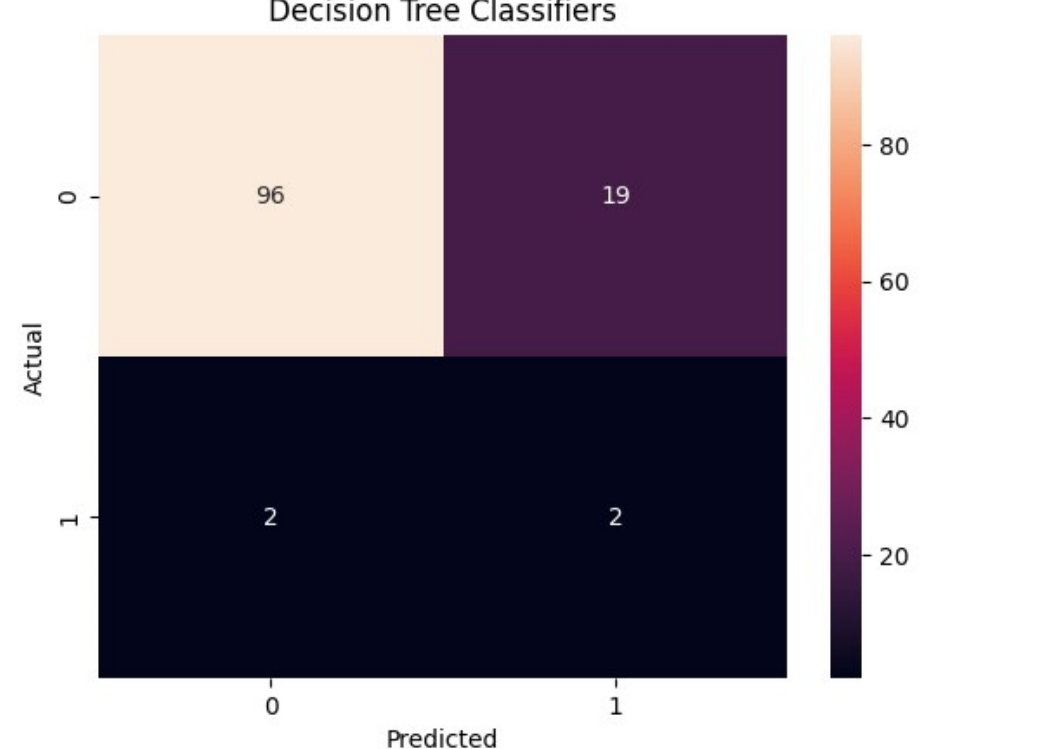
Dash boards which create datasets into pie chart



Decision Tree classifiers

Accuracy: 0.64352941104/0.508

	precision	recall	f1-score	support
0	0.98	0.83	0.90	115
3	0.10	0.50	0.16	4
accuracy				119
macro avg	0.54	0.67	0.53	119
weighted avg	0.95	0.82	0.88	119



CONCLUSION

In this analysis, we have examined a dataset pertaining to marginal workers in the state of Tamil Nadu. Our goal was to gain a better understanding of the characteristics of these workers, their distribution across districts, and their working patterns. Here are the main conclusions drawn from our analysis

