18CSE301J INFORMATION VISUALIZATION

INDIAN UNEMPLOYMENT REPORT

Arnav Shukla | Swastik Das

RA2111050010001 | RA2111050010006

SRM Institute of Science and Technology

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Contents

ABSTRACT

Unemployment has been a significant issue facing the Indian economy. This report analyzes the unemployment rate trend in India over the past decade. It examines the unemployment data collected by various government organizations like World Bank Open Data, MacroTrends, etc.

The report finds that the unemployment rate in India increased significantly during the period 1991 - 2023 reaching its highest level in 2019 - 2022 according to World Bank Data. Youth unemployment has been consistently higher than the overall unemployment rate. States like Bihar, Delhi, and Haryana have seen sharp increases in unemployment rates in recent years.

The goal of this report is to provide a one-stop analysis of unemployment trends, as well as to highlight the causes of unemployment

Keywords Unemployment · Analyze · Rate · Labour · Workforce

1 Introduction

Unemployment has been one of the major macroeconomic challenges for India for the past few decades. This paper analyzes the unemployment rate trends in India from 1991 to 2023 based on data collected from the World Bank Open Data, MacroTrends. It aims to understand how the unemployment scenario has evolved over the years and compare India's performance with global averages.

India embarked on widespread economic reforms in 1991 which liberalized the economy and propelled high growth. However, job creation did not keep pace with the growing labor force participation. The paper finds that though the unemployment rate declined in the initial reform years, it started rising again post-2005. Periodic spikes were seen after economic slowdowns in the late 1990s and 2008 financial crises. Rural unemployment reduced but urban joblessness increased sharply.

The paper analyses how unemployment was particularly severe among the youth and educated sections of the population. Sectors like agriculture and manufacturing could not generate sufficient non-farm jobs. Though services grew fast, their ability to absorb new entrants reduced over time. Demonetization and GST implementation further impacted informal sector employment.

India's unemployment rates over 1991-2023 are benchmarked against global averages and a few other economies. The data shows India fared worse than countries like China and Indonesia on this front despite outpacing them economically. Uneven progress across states also contributed to rising regional imbalances.

2 About the Unemployment

2.1 What is Unemployment

Unemployment refers to the condition of actively seeking work but being currently without a job. The unemployed consists of the people who are currently without work and are available for work, and have actively searched for work in the recent past or are waiting to be recalled from layoff. Unemployment happens when people are actively searching for jobs but are unable to find one due to a lack of suitable job openings. It is calculated as a percentage of the labor force (people employed + unemployed) and is used as an important indicator of the economic health and stability of a country.

2.2 How Unemployment Rate is Calculated

The unemployment rate in India is calculated using a standard formula adopted internationally by the ILO. It expresses the rate as a percentage that represents the proportion of unemployed individuals within the total labor force.

The formula is:

$$\text{Unemployment Rate } (\%) = \frac{\text{Number of Unemployed People}}{\text{Labor Force}} \times 100$$

Some key aspects:

- The number of unemployed people refers to those within the labor force who are currently without a job but actively seeking employment.
- The labor force constitutes all individuals in the working age group (usually 15 and above) who are either employed or unemployed/looking for work.
- To calculate the rate as a percentage of the total labor force, the result is multiplied by 100.

Defining the unemployment rate in this manner, as the percentage of the labor force that is unemployed and actively job-seeking at a point in time, makes the indicator easily understandable. The higher the percentage, the greater the level of unemployment prevalent in the economy.

This standard ILO-compliant methodology allows for accurate assessment and benchmarks the unemployment situation in India against international standards.

2.3 How are we collecting this data

For our analysis of unemployment rate trends in India from 1991 to 2023, we have collected official annual data from two reliable secondary sources - the World Bank Open Data platform and the website Macrotrends.

The World Bank is an important repository for India's labor force and employment statistics published by various government agencies over the years. It hosts national-level data on the total labor force, number of unemployed persons, and unemployment rates in India during 1991-2020 that has been collated from publications of the Labour Bureau, Central Statistics Office, and quinquennial rounds of the National Sample Survey.

Meanwhile, Macrotrends extends the time series further up to 2023 by compiling figures reported in recent annual reports and economic surveys of the Government of India. Though India transitioned to a new survey methodology in 2017, Macrotrends and World Bank

ensure continuity in the long-term dataset by making appropriate adjustments wherever needed.

Collectively, these two sources provide a consistently defined, official, and widely accepted secondary dataset spanning over three decades which is crucial for our objective, rigorous examination of unemployment trends in India over the long term. Primary surveys were not feasible due to restrictions on sample size and the timeline for this study.

3 Source

3.1 Data Collected

All our data is studied and collected from the Website The World Bank and Macrotrends. All the data which is collected can be used to study the unemployment rate in different parts of the world with a good visual representation of the data.

3.2 Structure of the Data set

To study the data we need to structure the data in such a way that it should be differentiable and should be visualized in an individual area rather than the parts of the country.

The following are the ways to structure the data-

- Country/Region Name: The name of the country or region being represented in the dataset.
- ISO Country Code: The ISO code that uniquely identifies each country or region.
- Unemployment Rate: The percentage of the labor force that is unemployed during the specified year.

3.3 What is the need to analyze Unemployment

- Economic Health: Unemployment is a crucial indicator of an economy's overall health. High levels of unemployment can signal economic distress, while low levels can indicate a thriving economy. Analyzing unemployment rates and trends helps economists, policymakers, and businesses assess the state of the economy and make informed decisions.
- Labor Market Dynamics: Unemployment data reveals information about labor market dynamics, such as job creation, job destruction, and the matching of job

seekers with available positions. This information is crucial for understanding the balance between labor supply and demand.

- Income Inequality: Unemployment can contribute to income inequality and social disparities. Those who are unemployed or underemployed may experience financial hardships, which can lead to negative social consequences.
- Education and Skill Gap Analysis: Analyzing unemployment by educational attainment and skill levels can help identify gaps in education and skills training programs. This information is essential for designing educational curricula that align with the needs of the job market.

4 Conclusion

In conclusion, our analysis of global unemployment data underscores its pivotal role in assessing economic health, informing policy decisions, and addressing societal challenges. We unveiled intricate patterns, highlighting the urgency of targeted interventions to mitigate disparities across demographics and industries.

By deciphering unemployment's impact on inflation, income inequality, and social stability, we emphasize its far-reaching consequences. As our information visualization project underscores, analyzing unemployment data empowers stakeholders to make informed choices, fostering resilient economies and equitable societies. Looking ahead, we encourage continuous research, data refinement, and proactive policies to propel us toward a future of sustained employment and prosperity.

5 Bibliography

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