

World Bank Development Indicators Data Analysis

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GitHub Repository: <https://github.com/AR-KASHMIRI47/REFERRAL-Statistics-and-Trends.git>

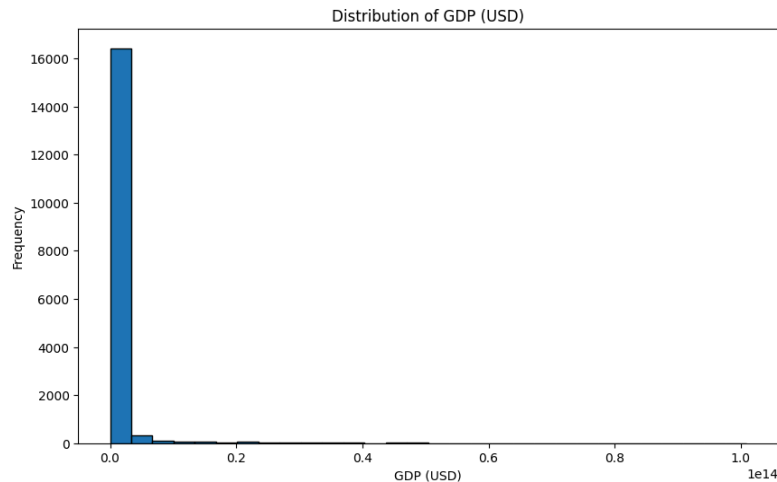
Introduction

This report explores the World Bank Development Indicators dataset [<https://www.kaggle.com/datasets/theworldbank/world-development-indicators>], focusing on economic, social, and environmental metrics across countries. The analysis aimed to uncover trends and relationships in global development through data cleaning, descriptive statistics, and visualization.

Analysis and Visualization

1. GDP Distribution

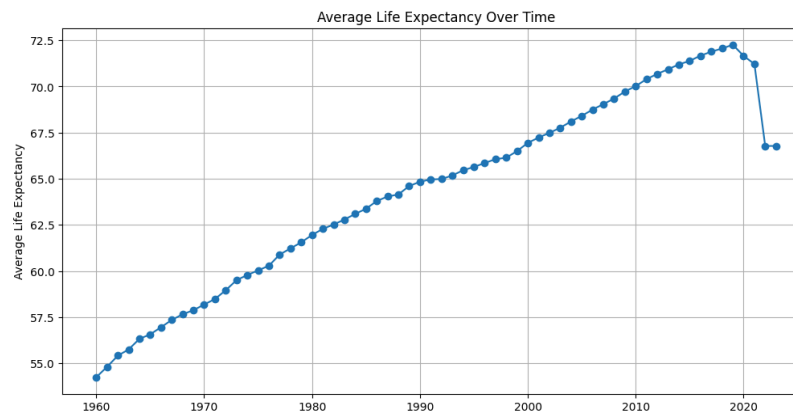
The first plot is a histogram displaying the distribution of GDP values across countries.



Most countries exhibit lower GDP values, while a few outliers display exceptionally high GDP. The distribution is right-skewed (skewness = 9.30, kurtosis = 111.63), indicating significant economic disparity. The median GDP (17.86 billion USD) is lower than the mean (939.35 billion USD), showing the impact of high-value outliers.

2. Life Expectancy Trend

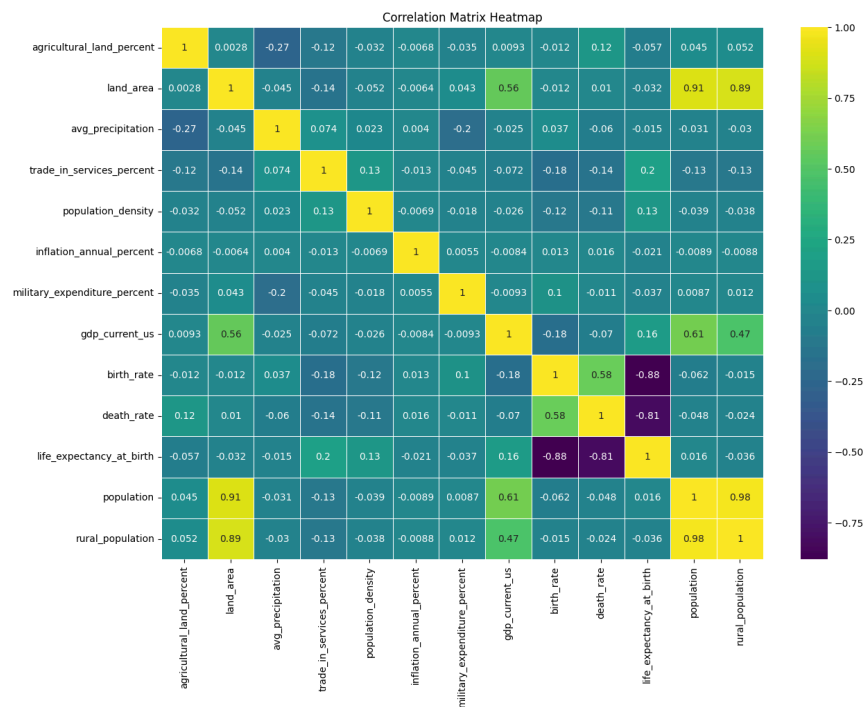
The second plot is a line graph showing the trend of average life expectancy over time.



It reveals a steady upward trajectory, reflecting global improvements in healthcare, nutrition, and living conditions. The analysis shows a positive correlation ($r = 0.46$) between time and life expectancy, indicating consistent progress.

3. Correlation Matrix Heatmap

The third visualization is a heatmap of the correlation matrix, highlighting the relationships between key numerical indicators.



Strong positive correlations, such as between GDP and land area ($r = 0.56$), indicate direct relationships. Conversely, negative correlations, like those between trade in services and agricultural land ($r = -0.12$), reveal inverse associations. This matrix provides a clear overview of inter-variable dependencies.

Conclusion

This analysis provided insights into global development trends, showing a significant disparity in GDP distribution, a positive trend in life expectancy, and diverse inter-variable relationships. Further exploration could focus on country-specific trends or predictive modeling of economic indicators.

GitHub Repository

You can access the complete analysis and code at:

[\[https://github.com/AR-KASHMIRI47/REFERRAL-Statistics-and-Trends.git\]](https://github.com/AR-KASHMIRI47/REFERRAL-Statistics-and-Trends.git)