STAT596: Regression & Time Series Analysis

Final Project: Forecasting the US Population using US Census 1959-2021

Team

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Project Proposal

Abstract

Forecasting future events is an interesting activity, and it amplifies when there is calculated evidence. Forecasting population is important as it helps people i.e., government, researchers, make decisions about the future. A time series forecasting is one statistical model to predict future values based on previously observed values. This project aims at gathering data from the US Census Bureau which contains the US population observed from Jan, 1959, and updated every month since then. And, observing seasonality, then applying AR and ARIMA techniques to predict future values. Finally, it would conclude by cross validation and testing to see which could be a better forecasting model for our dataset by comparing model accuracy.

References

- 1. Data source https://fred.stlouisfed.org/series/POPTHM
- 2. US Census Bureau data https://www.census.gov/topics/population.html