Finance Group #1 Capstone Project

Executive Summary

For our capstone project, we are investigating the factors that contribute/lead to poverty across the United States. To begin, we will explore broad trends of poverty on a nation-wide level from 1995 to 2020, identifying whether inflation, political parties in office, or federal government spending on education and social services trend similarly. Next, we will narrow in to the state level over the same time period, investigating what factors are related to poverty levels in each state. The factors we will consider are: racial breakdown, education attainment (high school diploma and Bachelor's degree) rates, alcohol state revenue, tobacco state revenue, drug overdose rate, population size, state lottery revenue, state debt, state property tax, unemployment level, party control of government, and state spending on education & social services. We will train and use a machine learning model to predict poverty levels for different states in the 1995 to 2020 year range. Alongside our machine learning model, we will also display visualizations to explore the relationships of specific factors with poverty levels, such as how state spending relates to poverty. From our data exploration, machine learning model, and visualizations, we seek to better understand the causes of poverty in the United States and provide guidance for future research and improved government anti-poverty policies.

Here is a list of our data exploration questions:

Federal Level

1. How has the nationwide U.S. poverty level changed between 1995-2020?
2. Is there a relationship between the U.S. poverty level and: party control of government, inflation, or federal spending on social services?

State Level

3. What factors influence poverty rates on a state-level?
4. Is state tobacco or alcohol revenue related to state poverty levels?
5. Are state poverty levels and state education spending related?
6. Are state poverty levels and state social services spending related?