Overview:

The economic statuses across Latin American countries can vary greatly - with many countries growing at exponential rates thanks to tourism, exported goods, amongst other industry sectors. However, several other countries - and more so sections in other countries, struggle with extreme levels of poverty with varying levels of the population being not only unemployed, but also not meeting the basic needs for survival. Although reports show an decrease in the poverty levels for Ecuador and an increase in economic status, the country still battles with improving the quality of life for it's residents. One of the methods that Ecuador has taken to battle this ongoing issue is by providing a free education system to citizens up through the equivalent of middle school / mid high school level. Although there had been an initial improvement when the government implemented this system, the results have eventually plateaued across the nation, as well as newer studies shown that the system in place does not benefit all of those in need equally.

Question:

I would like to look further into the system that Ecuador has implemented to improve it's education system by analyzing the distribution of the number of schools across the country and into which provinces the system has benefitted the most. There appears to be a correlation between the number of schools supplied and the provinces that are poorer - the areas of Ecuador that are much higher in poverty are not given the same resources as the areas that may already be seeing a significant rise in economy and a drop in unemployment levels and literacy levels.

Data:

The Ecuadorian education system has released a database that supplies the number of schools that were built within the last 5 years across the provinces, as well as the basic enrollment costs (normally free) and maximum enrollment costs - if any. Similarly, by using census data from the Ecuadorian CENSUS database, I would be able to combine data on poverty levels, demographics, and province GDP to display a lack of resources provided to areas in need.

Tools:

The databases provided often are provided in CSV format, or XLSX format. By using google sheets - I should be able to combine and manipulate data where needed to perform an EDA on the information given.

Seaborn/ Tableau would be used to create visualization of the data, and a heatmap of Ecuador schools across the provinces.

MVP:

An initial MVP for this project would be to display a visualization of the distribution of schools across the provinces in Ecuador that are correlated in being provinces with higher poverty rates and higher levels of illiteracy - and to find the connection that accessibility to education at a younger age allows for the ability to better the life conditions of the residents of the province.

For a solution - I am anticipating finding results on the current allocations of the education department, average costs of school funding- to give an in depth analysis of the impact of the model on the current business costs.