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DATA 316

Final Project Proposal

Predicting Life Expectancy by Country

For our final project, we thought that analyzing the life expectancy of different countries would be interesting. Especially after COVID, we thought it would be interesting to predict the life expectancy of countries in the future using data from the past.

We gathered data from the World Health Organization and from Our World in Data, an organization that is partnered with Oxford University and the Global Change Data Lab. We got one dataset from the WHO and three from Our World in Data. Each dataset from Our World in Data has one or two explanatory variables from almost every country in the world, and the dataset from WHO has our response variable: life expectancy at birth.

We plan to forecast future life expectancies for each country using historical data from the WHO and the variables we gathered from Our World in Data. These Variables are GDP per capita, population, average years of schooling, human development index, sex, percent living below the international poverty line, and life expectancies in past years.

We think that GDP per capita and percent living below the poverty line are important explanatory variables because the income parents have at a child’s birth can impact their health. Population and human development index are important as variables explaining a country's development and industrialization. Education is important because education is known to impact the life outcomes of people, and sex is important because of the biological differences between men and women.

References

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