Dataset Nutrition Label

Covid-19 Vaccination Rates and U.S Income Trends

About

We merged the CDC's Covid Data by State data frame with the BEA's Economic data by state in order to analyze potential relationships between income and COVID-19 vaccination rates. We identify the number of states with herd immunity (vaccine percentage over 80 percent), 2022 income versus the percent of population with at least one dose, the most common vaccine dose per state, increase in percentage income over the last 10 years, and the percent increase in income against the doses administered.

Data Creation Range: January 2010 – December 2022
Created By: Sophie B., Sai R., Taylor W.
Content: .csv dataset
Source: https://github.com/INFO-201-Fall-2023/final-project-repositories-bestinfo201project

Alert Count	7
Completeness	**1**
Nonresponse	1
Provenance	**1**
Misrepresentation	1
Collection	**3**
Socioeconomic Bias	1
Inaccurate Prediction	2
Description	**0**
Composition	**2**
Oversimplification	2

Use Cases

Possible real-world applications of the dataset

1) How can we model possible trends or correlations between economic income levels per geographical region and COVID-19 vaccination rate?
2) What are the total doses administered, total population, average income, and average change in income over the past 10 years per each identified U.S geographical region?
3) Are communities throughout the U.S. receiving the resources they need to stay healthy?

Badges

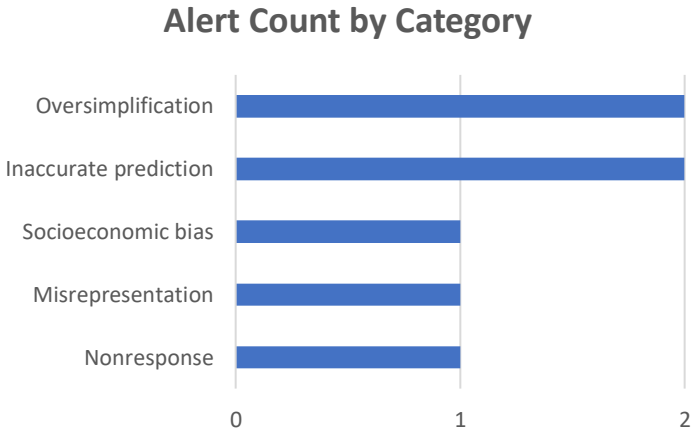
Healthcare

Promotion of human values

Fairness and non-discrimination

Sensitive data: financial and health

52 observations of 229 variables



Modeling Objectives

- Number of states with herd immunity.
- 2022 income versus the percent of population with at least one dose.
- Most common vaccine dose per state.
- Increase in percentage income over the last 10 years.
- % increase in income versus the doses administered
- Group states by geographical region and displays total doses administered/region, total population/region, average income/region, and average change in income over the past 10 years/region.
- Classify geographical regions based on income and COVID-19 vaccination rates.

7 alerts

- Surveys and questionnaires used for income status may have low response rates, leading to biased data.
- The vaccination data may not represent all vaccinated individuals if some people receive vaccines through unofficial or unregistered channels.
- Assumes that income levels are a valid proxy for socioeconomic status.
- Some states or territories may underreport or overreport vaccination numbers due to differences in data collection methods or political reasons.
- Some states or territories may underreport or overreport economic data due to differences in data collection methods or political reasons.
- The vaccination data may not capture differences in vaccination rates within states, leading to an oversimplified analysis.
- The economic data may not capture differences in income levels within states, leading to an oversimplified analysis.