

CS 5610 Project Proposal
Reproductive Healthcare Biases within Michigan
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The Problem

Reproductive health services are vital in all communities, but does this mean that persons in every type of community have access to the healthcare they need? With organizations that provide affordable healthcare - such as Planned Parenthood - losing their federal funding due to new laws such as the “Protect Life Rule”, it is more important than ever to ask the question: is affordable reproductive healthcare accessible in impoverished communities?

The Data

- The United States Census Bureau API-Poverty Statistics: CPS & SAIPE
 - This data consists of 23 variables, which includes categorical as well as quantitative variables. However, we will be using the most pertinent variables, for example: “GEO_ID”, “time”, “year”, “race”, “fam” and “fampov”.
- The Google Maps API to locate Planned Parenthoods.

Analytical Techniques

- Data wrangling to retrieve the data from the US Census Bureau API
- Chi-Square hypothesis test
 - Null Hypothesis: *There is no relationship between income level and locations of Planned Parenthoods.*
 - Alternative Hypothesis: *There is a relationship between income level and locations of Planned Parenthoods.*
- Correlation factor using Pearson’s Correlation Formula
- Data visualization: using ggplot2

Impact

The overall goal of this project is to shed light on the healthcare biases within the United States. An ideal model would include income data from every household in the United States and locations of all reproductive healthcare services (including private/independent organizations that would be more difficult to locate than Planned Parenthoods). Additionally, it would be interesting to someday expand the project to see which Planned Parenthoods closed as a response to the loss of funding and if those that closed were located in impoverished or affluent communities.