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CS 410 Explorations in Data Science
23 July 2020

Midpoint Report: Education Inequality Heat Map

Project Objective:

Our objective has really not changed since we first planned our project. We are attempting to build a Web application that implements a heat map using multiple filters to allow users to possibly define areas of the country where there are issues in regards to education inequality.

Project Approach:

The datasets that we will be using are:

1. “By County Data Sets on Education, Poverty and Median Household Income”
(<https://www.ers.usda.gov/data-products/county-level-data-sets/>)
2. “By County Demographics for Each State in US”
(<https://www.ers.usda.gov/data-products/county-level-data-sets/>), and
3. “School Funding Fairness Data System”
(<http://www.schoolfundingfairness.org/data-download>)

We had previously stated that we would be developing our tool using a JavaScript React framework, but have since found that a Vanilla JavaScript implementation using different libraries would work better. We are still building the application, using the Leaflet library and the Open Street maps repository for developing the maps. We will now be building our app as a Choropleth map that divides the US map in to counties so that each county can have clear defined heat map boundaries.

Team Structure:

The two main parts to this project are implementation and evaluation of the heat map. We will divide work as we see fit. Our goal is to finish the coding aspect of the project, analyze our results, and prepare for the final presentation at the end of the term.

Update on progress with respect to Project Milestones:

We are pretty close to being where we thought we would be in the project, but we are off by a couple days. We have managed to find and clean our proper data sets as stated in our Project Plan and for our next milestone “*Build a heat map to provide a visual representation of the data. 07/21*”. We are just about finished building out this milestone, so we may be about 5 days late on this implementation. We will adjust our project plan accordingly.

Our Project Plan:

1. Build a heat map to provide a visual representation of the data. 07/26
2. Begin working on presentation and developing insights using our tool. 07/27
3. Finish out Discussion and analysis of results. 08/04
4. Present the final project to our peers. 08/06
5. Write the final research paper. 08/15

Date / Time of Scheduled Midpoint Meeting with Prof.

Our midpoint meeting with Professor Kristin was on July 21st, 2020 from 3:10pm to 3:20pm.