

EDUCATION INEQUALITY

Angie McGraw & David Poole
CS 410: Explorations in Data Science
Summer 2020



What is Education Inequality?

The difference in resources, such as:



Funding



Classroom Materials



Living Environments



Quality of Educators



Why Does It Matter?

Education is a pathway towards a stable and secure future.

A country without fairness in education cannot be deemed an equitable country.

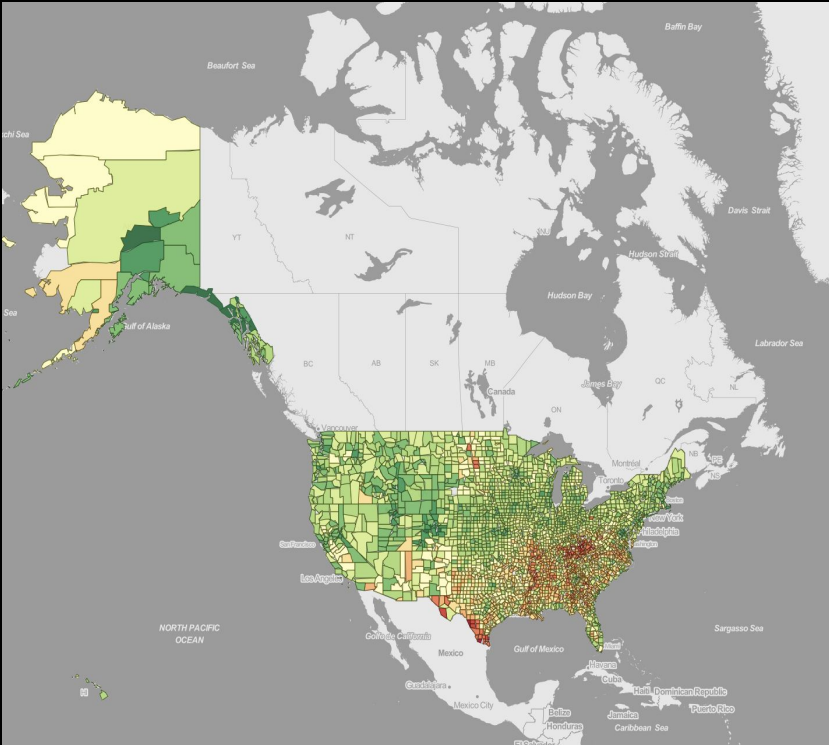
Choropleth Map

WHAT WE IMPLEMENTED

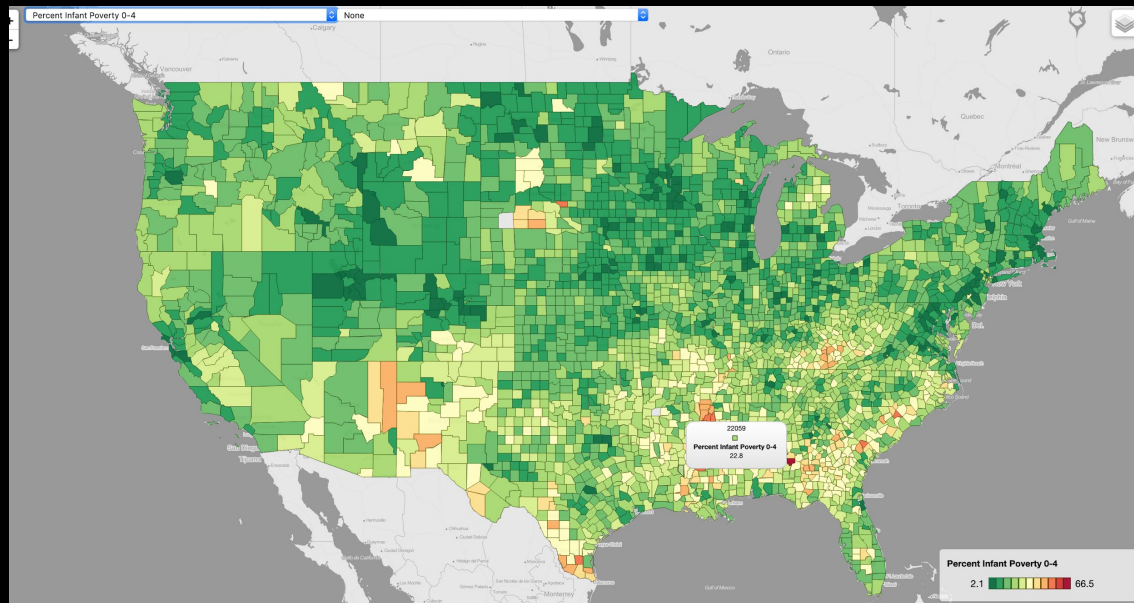
We implemented a choropleth map to highlight the current trends in education inequality.

DATA SETS USED

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/>)
3. "School Funding Fairness Data System"
(<http://www.schoolfundingfairness.org/data-download/>)
4. "National Assessment of Educational Progress"
(<https://www.nationsreportcard.gov>)

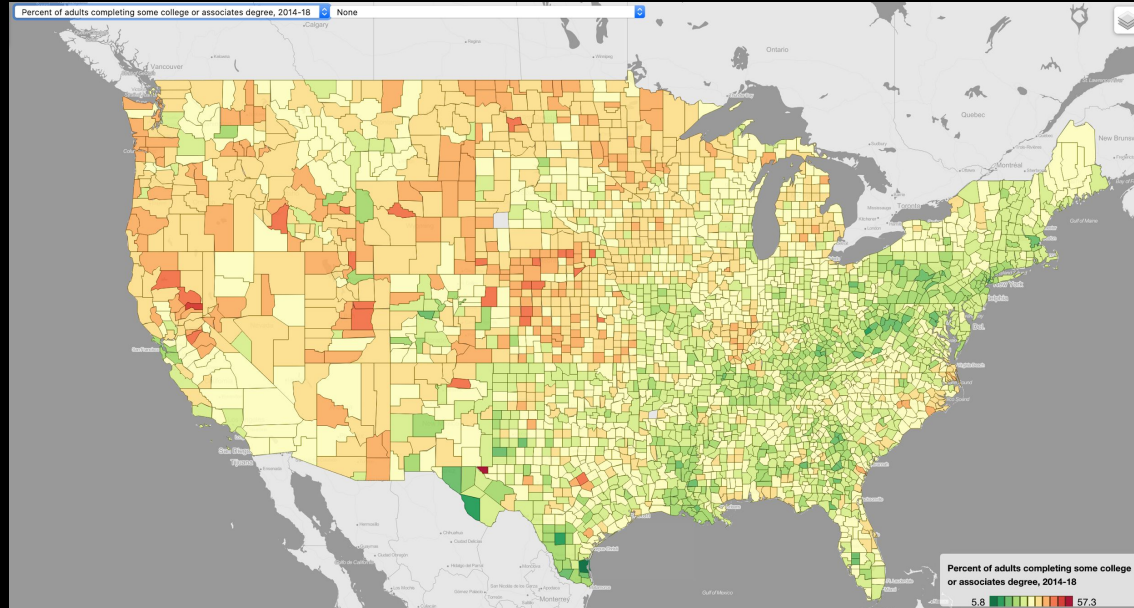


Choropleth Map



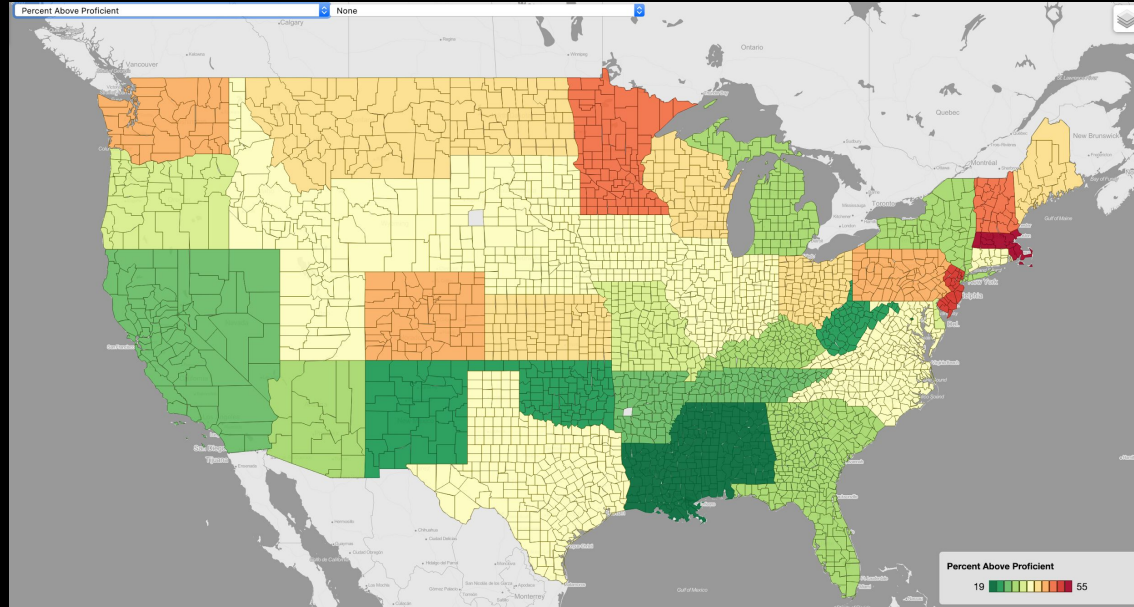
**Percent of infants living in
poverty by US county**

Choropleth Map



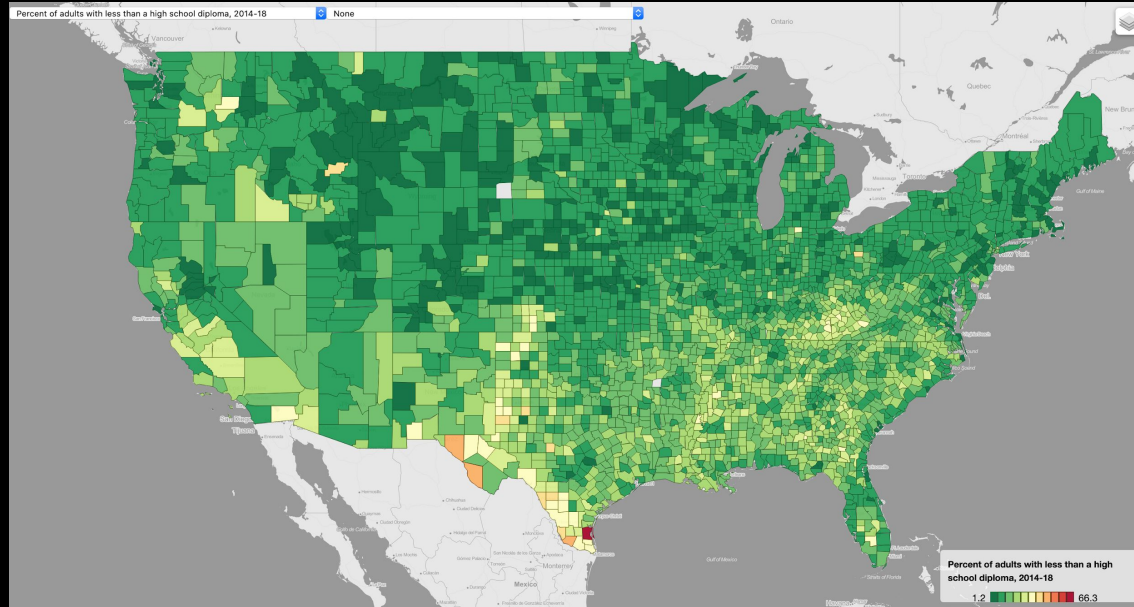
**Percent of adults completing
some college by US county**

Choropleth Map



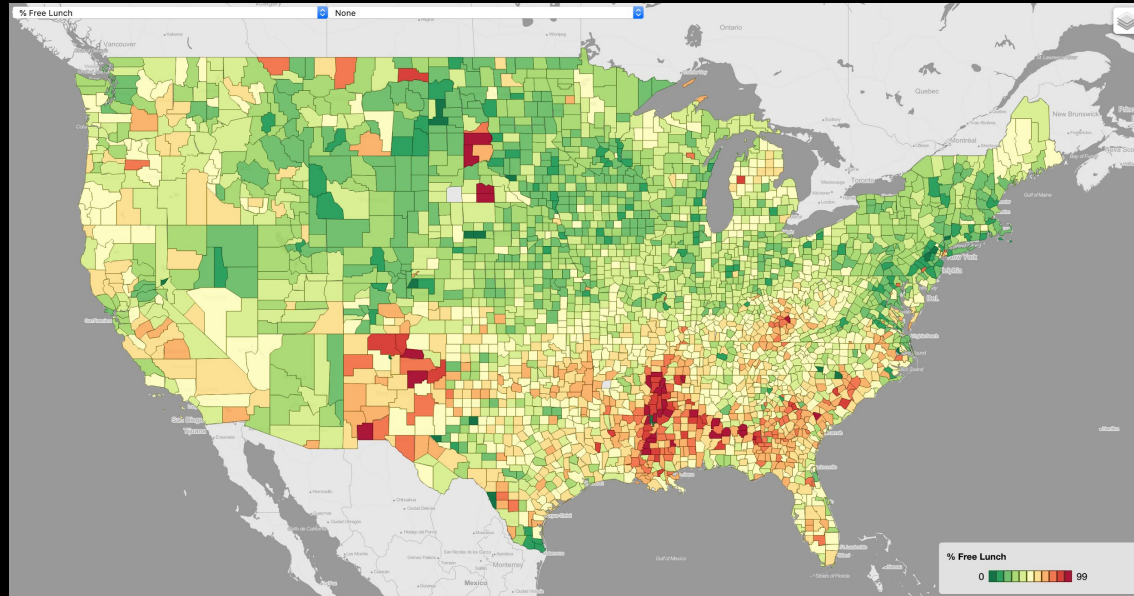
**Percent of students in grade 8
with higher than proficient test
scores by state**

Choropleth Map



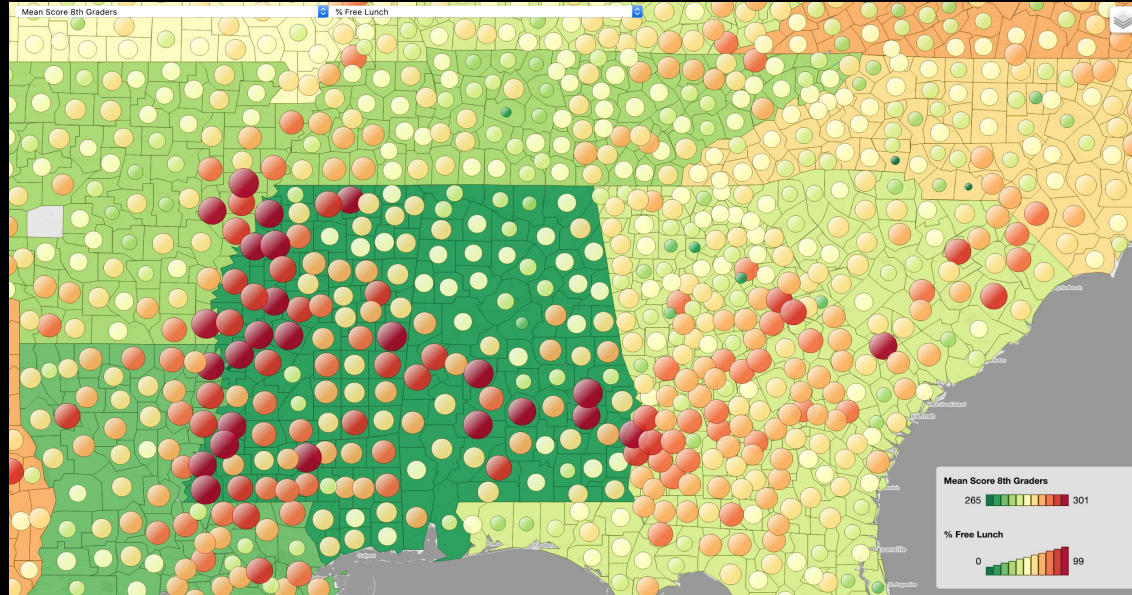
**Percent of less than high school
attainment**

Choropleth Map



**Percent of students given free
lunch**

Choropleth Map

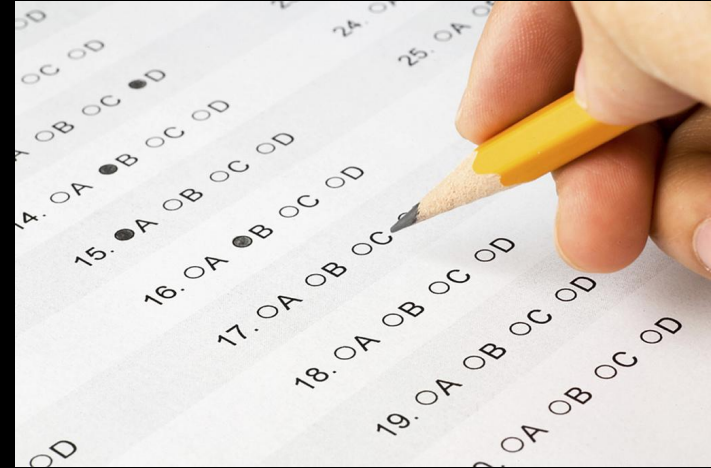


**Average test scores vs.
percentage of students getting
free lunch**

Trends to Note

An increase in funding does not necessarily mean that the quality of education increases.

However, higher household incomes correlated to higher test scores.



What Needs to Be Done

POLITICAL

- Redistribute funding for schools
- Improve our health care systems
- Provide more support to disadvantaged families
- Ensure that all students reach national testing standards
- Deploy experienced teachers to the most disadvantaged areas

What Needs to Be Done

PUBLIC AWARENESS

- Place an emphasis on education and its importance
- Educate our communities and officials on the inequalities that persist in our education systems

What Needs to Be Done

EQUITABILITY

- Provide evidence that making education a priority is important
- Promote equitable learning
- Deliver quality education for everyone



Key Takeaways

We hope this choropleth map will highlight other correlations and shed light on the education inequalities in the US.

To close the gap, we need to increase our commitment to education, invest in efforts to provide equitable learning for all students, and recognize the economic disparities in our schools.

A black and white photograph of an empty classroom. Rows of desks and chairs are visible, leading towards a large window at the back of the room. The lighting is bright, coming from the window, creating a high-contrast scene. A dark, textured object, possibly a bag or a piece of clothing, is draped over a chair in the foreground.

THANK
YOU