

Who Donated to Bernie Sanders in Florida and Ohio?

Ohio?



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Bernie Sanders Campaign Background

Announced he would run for President on May
1st, 2015

Average donation of \$27.89

Went on to win

New Hampshire

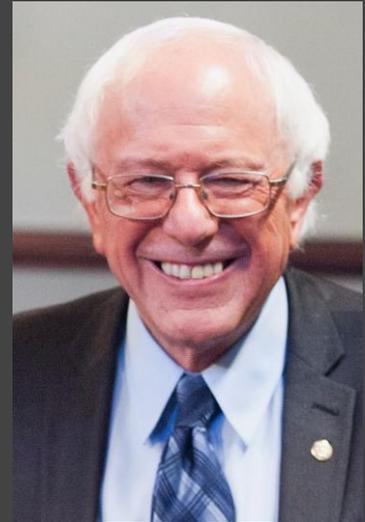
Colorado

Minnesota

Oklahoma

Vermont

- And...
 - Utah
 - Alaska
 - Hawaii
 - Washington
 - Wisconsin
 - Wyoming
 - Pennsylvania
 - Rhode Island
 - West Virginia
 - Oregon
 - Montana
 - North Dakota

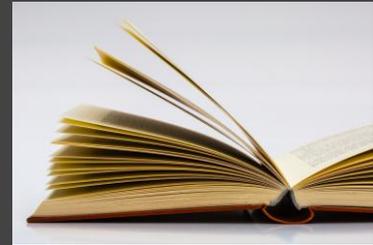


Measures

Race: what race contributed the most to the campaign in these states?

Income: how much did the average donator make?

Education: how far did the donators go in their academic careers?



Indicators

Race -

White
Black
Asian
Hispanic
Multiple

Income -

- Based off median household income (\$51,000)
- <\$40,000
- \$40,000-\$60,000
- >\$60,000

Education -

- No High School
- High School
- Post High School

Our Hypotheses

- Majority of Bernie Sander supporters are 'white', higher median income families, & higher educational background
- Minority of Bernie Sander supporters are of '2 or more races', lower median income families, and a lower educational background

Unique Challenges

Large Hispanic population in Florida

Poor, rural counties in Ohio

Largely Black neighborhoods in Ohio

Small, rural neighborhoods/zip codes distorting data averages

Balancing contrasting sociological trends in North and South Florida

Chosen Counties

Ohio -

capitol

Cleveland

Franklin - urban, state

Clark - rural

Trumbull - rural

Cuyahoga - urban,

Morgan - rural

Florida -

Broward - urban, Ft Lauderdale

Holmes - rural, panhandle

Collier - rural, retirees

Pinellas - urban, St Pete

Baker - rural

Holmes County, FL (Rural)



Broward County, FL (Urban)



Morgan County, OH (Rural)



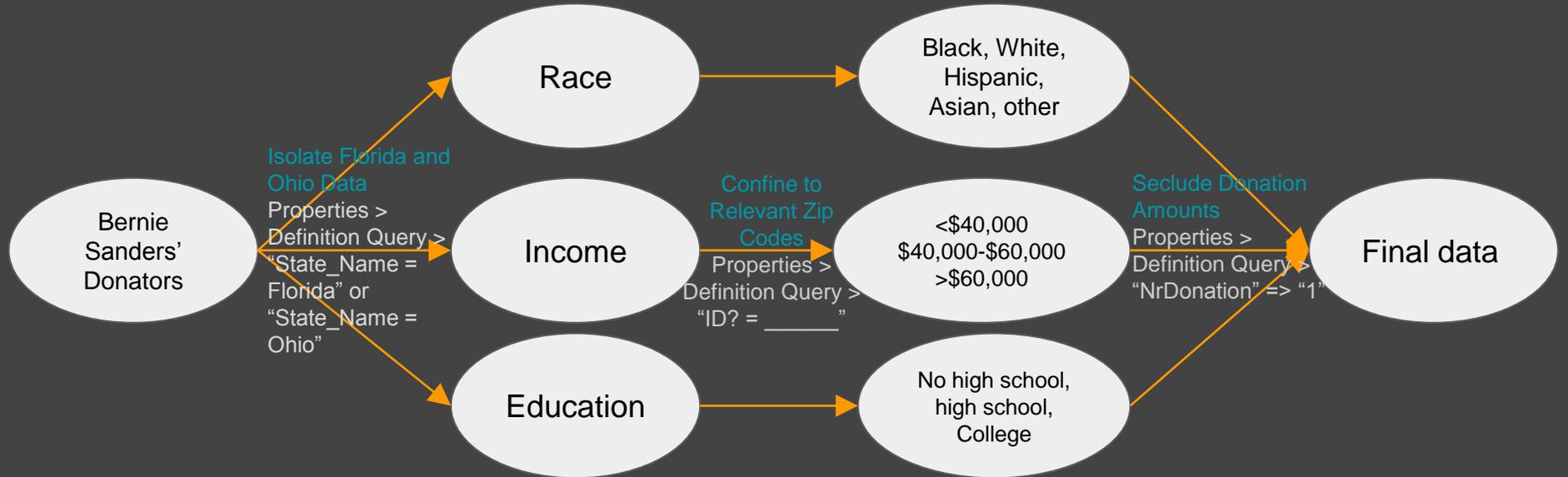
Franklin County, OH (Urban)



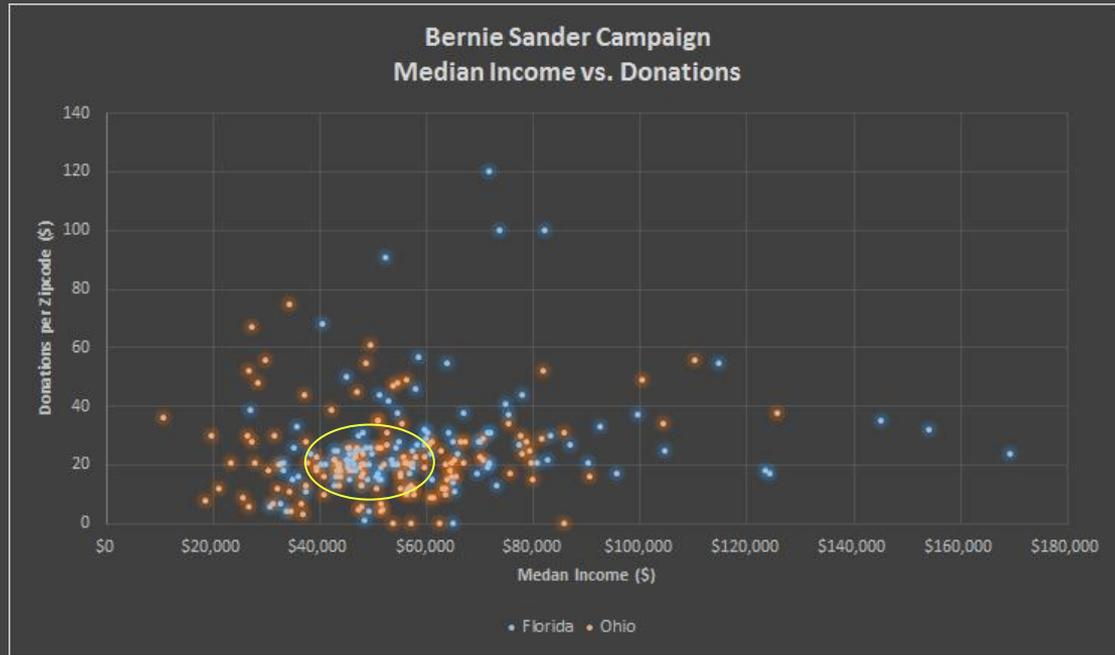
Methodology

1. Identified zip codes with high number of donations using given data from Sanders Data and NewData on GIS
2. Isolated data from Florida and Ohio
3. Consolidated adjacent zip codes with donations into the corresponding counties (5 counties from each state were used)
4. Compiled attribute data from these 5 counties into an excel file and plotted the trends
5. Determined the validity of our hypotheses based on the Excel analysis

Flow Chart

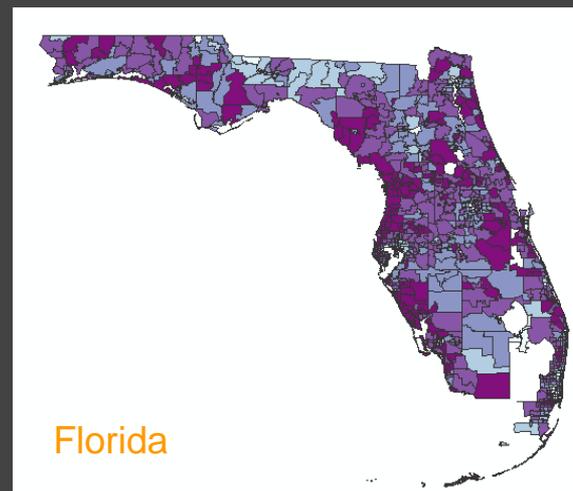
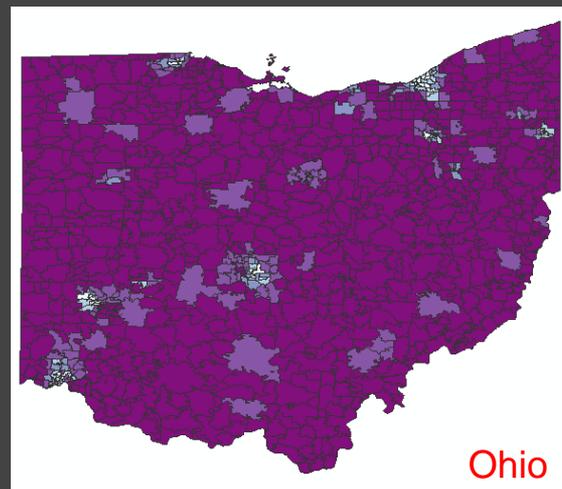
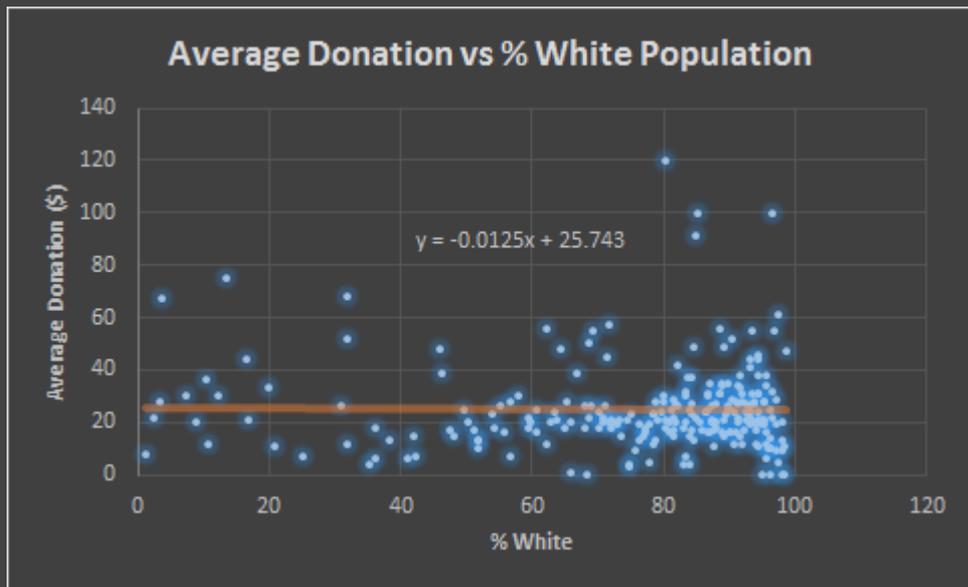


Household Income Analysis

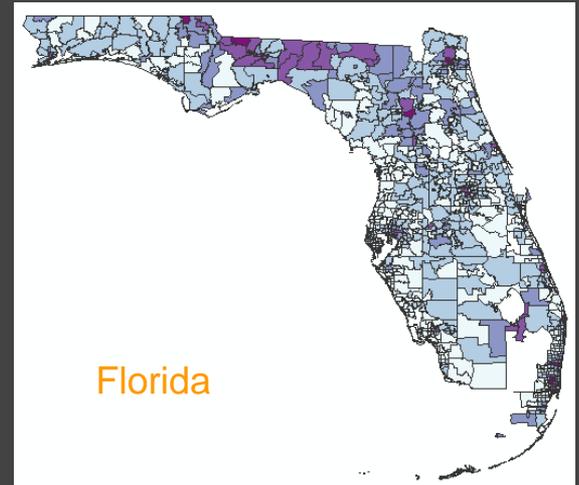
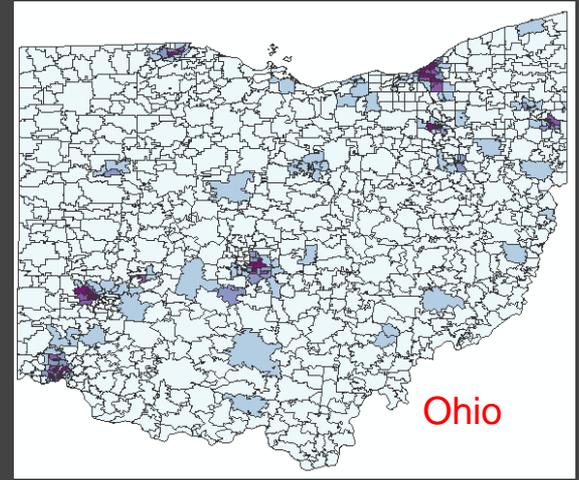
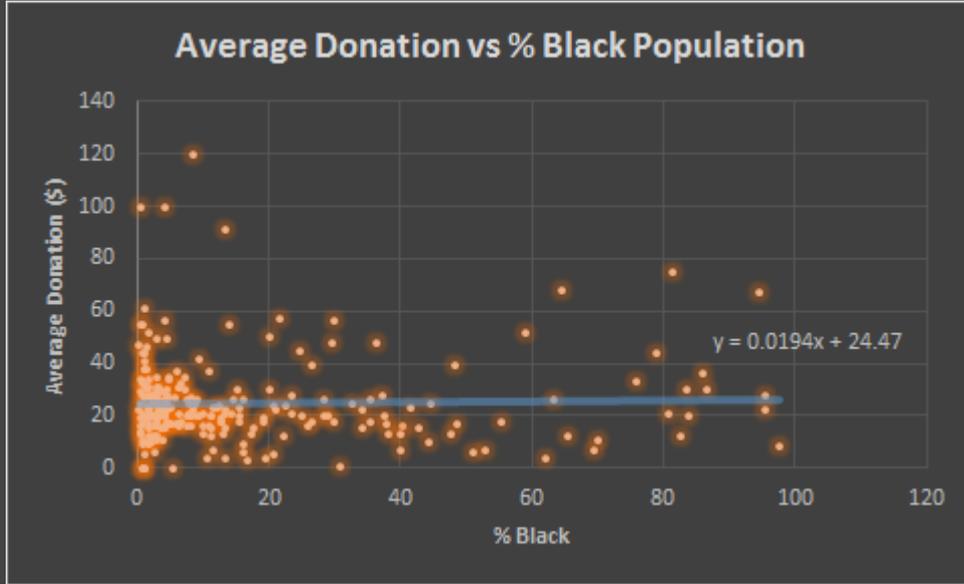


Most donations come from families with a median income of \$40,000 - \$60,000
The donation mode amounts cluster around \$15-25

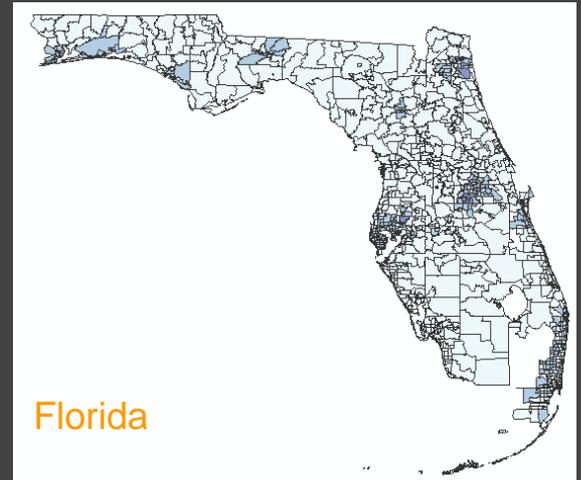
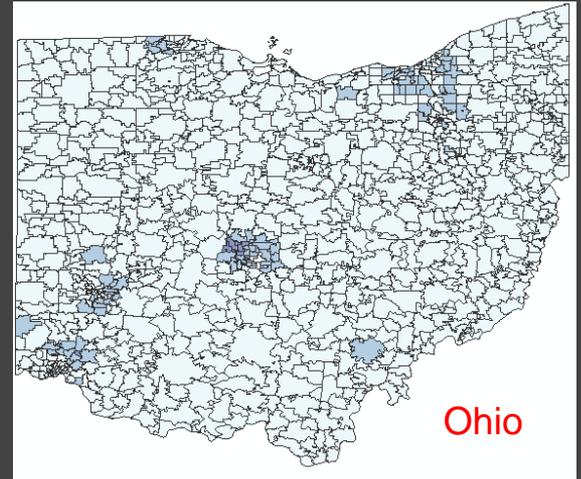
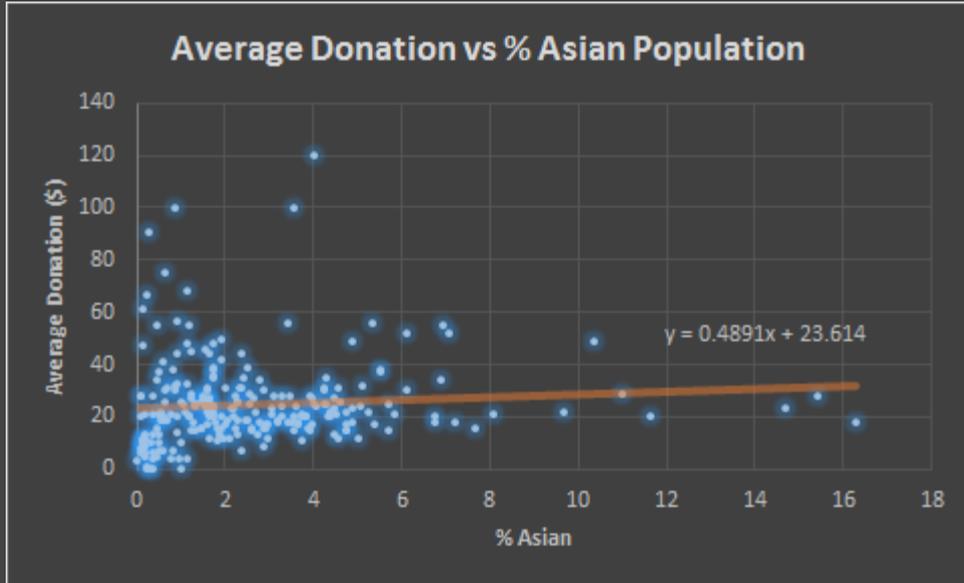
Race Analysis



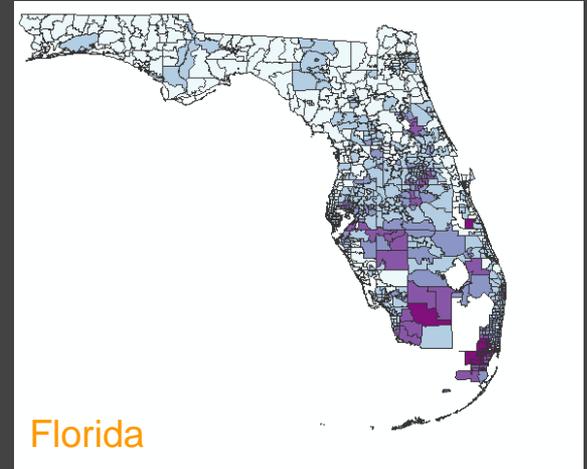
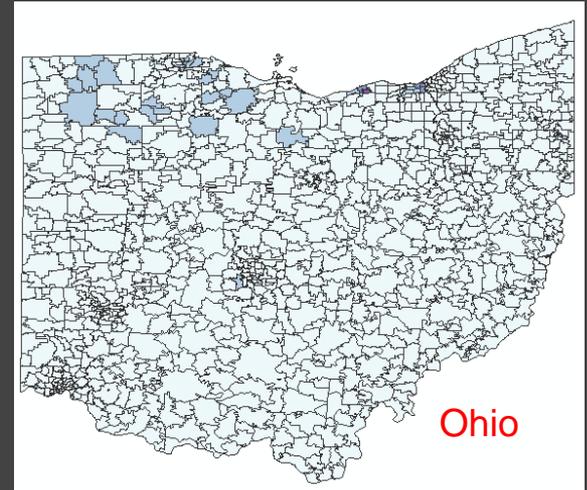
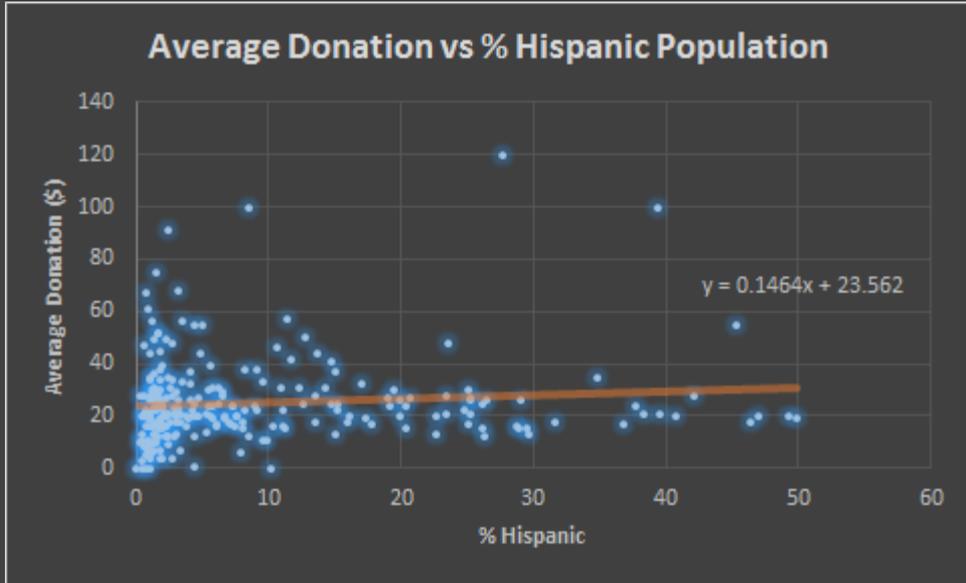
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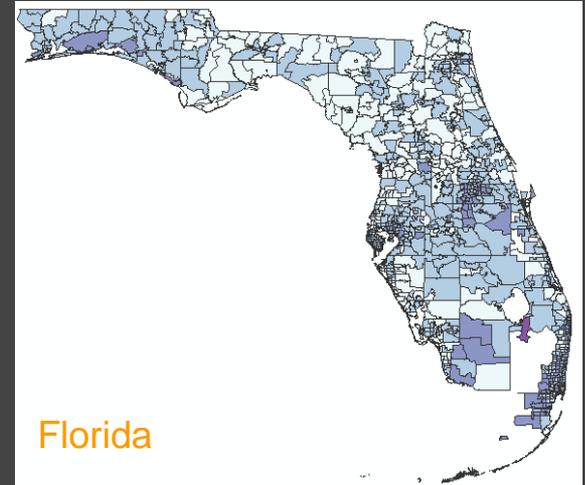
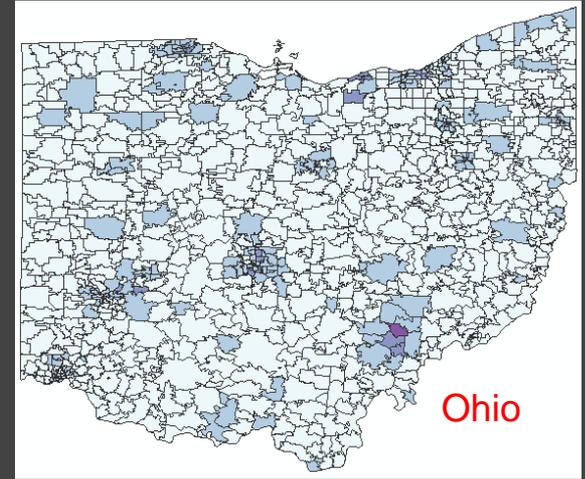
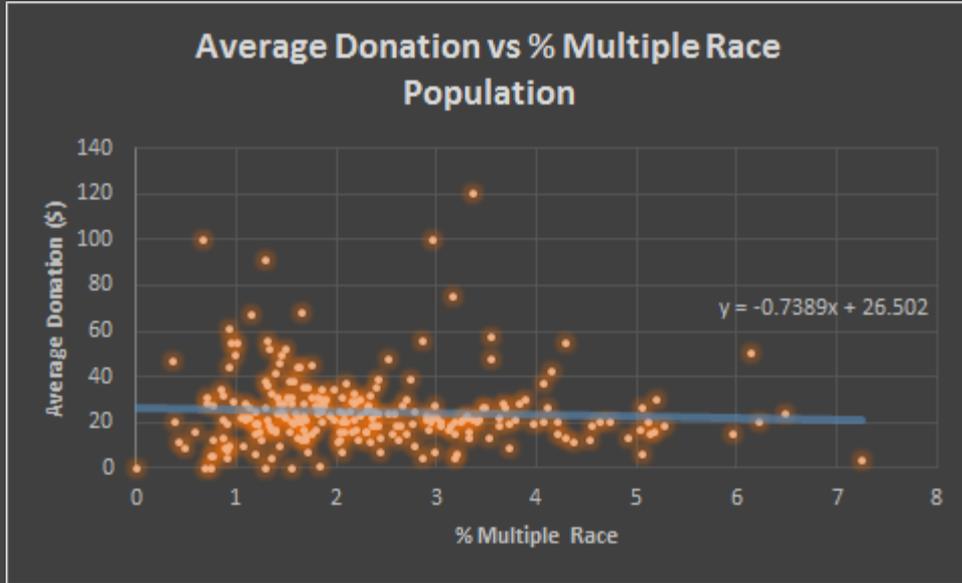
Race Analysis



Race Analysis

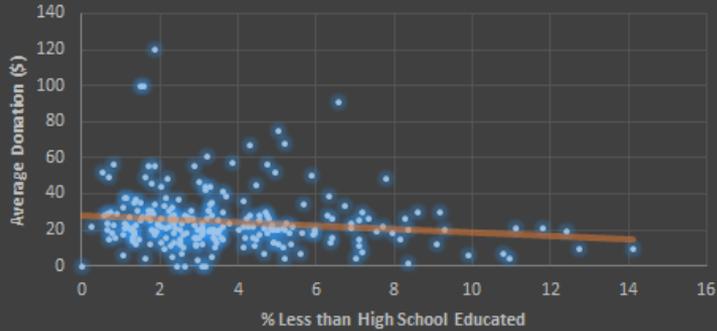


Race Analysis

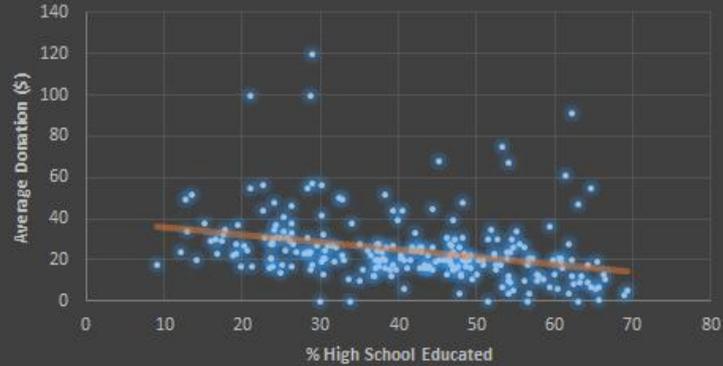


Education Analysis

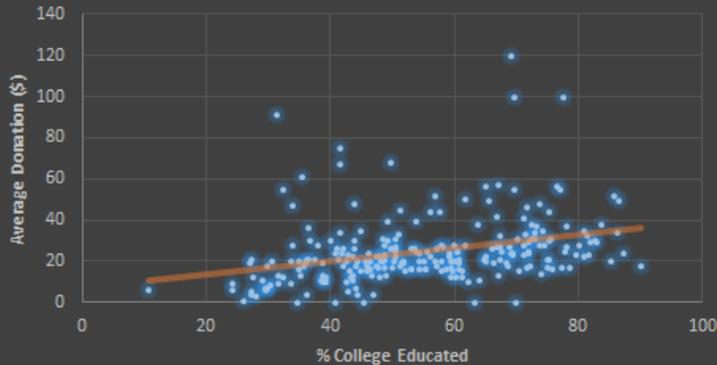
Average Donation vs % Less than High School Educated



Average Donation vs % High School Educated



Average Donation vs % College Educated



As the percent of people with

- less than a HS education \uparrow the avg. donation \downarrow
- HS education \uparrow the avg. donation \downarrow
- A college education \uparrow , the avg. donation \uparrow

So...

Results

Income - a large majority of the data points are crowded between the \$40,000 - \$60,000 range. The 3 highest data points fall near \$80,000.

High School Educated - as the % number of those who are high school educated increases, the amount of donations decreases

College Educated - as the % number of those in the area who are college educated increases, so does the average donation amount

Details to Note

- Incomes were based off of median income, not average income
- Population does not indicate correlation for donations
(one or two people could have donated a LOT of money, but if there is a high population, it does not mean higher population = higher donations)
- We had to base our data off of what we were able to find and what was given to us; therefore we had to make many inferences and the data is not clear-cut

Possible Errors/Skewed Data

Human error in typing data entries

Most donations average under \$100, but one was \$300 and one was \$500 which skewed the trendline

One zip code had listed that there were 3 donations that totaled \$0

A zip code in Florida had 48% percent educated Less than High School

Raw Counts vs. Percentages?

Counts show only WHO is voting, not their level of passion and investment.

In the case of race analysis, raw numbers are not an accurate representation because in the majority of cases, white people are the overwhelming majority.

In order to correct this misrepresentation of data, we used trendline slope as our measure of the data. This showed the strongest trend between the percent population of a specific race and their average donation size.

We believe this is a much better representation of “passion” for the campaign and more accurately interprets the average donor as one with a vested interest in the outcome.

Conclusions

Our income hypothesis was proven to be incorrect. The majority of households that donated to the Bernie Sanders campaign were lower middle class to middle class.

Our first hypothesis on race was determined to be incorrect. As the percent of Asians increased within each zip code, it was shown that the average donation size increased as well. Our hypothesis on the lowest average donation size are from people of 2 or more races was valid though.

Our hypothesis on education was determined to be correct. Higher educated people had a higher tendency to donate to the campaign.