The "Least Likely Voter": An Analysis of Voters in Arizona's Maricopa County

Cartographer: Dana Bradley May 13th, 2016

Overview

The state of Arizona has a history of voter disenfranchisement. Forms of disenfranchisement vary, from voter ID laws that discriminate against certain groups to a recent case where the number of polling places in the county was reduced from 200 in 2012 to only 60 for the 2016 primary. In any case, many people who should be able to exercise their democratic right to vote are not able to do so. Evidence shows that groups who are classically disenfranchised develop low turnout tendencies, at least partially as a result of these practices. This project is an effort to identify the areas containing these disenfranchised voters (Hispanic, Asian American, Low –Income Citizens) among other classic "low-turnout" voters, like young voters. By creating an index showing areas containing high populations of low turnout voters, it becomes evident where greater efforts are needed to encourage voter participation. This is a tool that can be useful for get out the vote efforts during the coming presidential election in November 2016.

Methodology

Demographic data for Maricopa County was mapped by census tract using data from the Tufts M Drive. This included the Asian population percentage, Hispanic percentage population, percentage of population considered to be "young voters" (18-29), and median household income. They were mapped as polygons and subsequently converted to rasters, which were then reclassified from 1 to 5 (low to high likelihood of voting). These rasters were added together using the raster calculator, creating the 8-16 "least likely voter index" by census tract where 8 means the tract has a low likelihood of voter turnout based on demographics, and 16 means the tract has a higher likelihood of turnout. This does not suggest perfect democratic representation in those census tracts. Finally, addresses of polling locations were geocoded and added to the map as a layer to show how spatially accessible voting is to these populations.



With the exception of a few census tracts where data was unavailable for all of the variables in question, the creation of the index was successful. It shows a few different things: first, it shows the diversity of Maricopa County. There is no uniformity that allows the census tracts to be treated similarly, which suggests that these diverse populations should be treated carefully when it comes to both get out the vote efforts, and campaigning in Arizona. Second, the index shows that not all tracts are treated equally. Especially in southwest Maricopa county there are areas which are very large, and also contain a combination of populations with classically low turnout rates. These areas might want to examined either by authorities when considering the addition of polling places in Maricopa County, or by those involved in get out the vote efforts. And finally, the index shows that in the more central, densely population areas of Maricopa County, there is much variation in the index of the "Least Likely Voter," however no profound increase in the amount of polling places in those areas, as they seem relatively evenly distributed.

Least Likely Voter Index



Percent of Population 18-29



Percent of Population Hispanic





Discussion



Limitations

There are many limitations to this analysis. First, as population density wasn't taken into account in the analysis, it is difficult to tell if the locations of the polling places correspond more with the amount of people in a census tract or the type of people in a census tract. Second, more variables could create a more precise index. For example, voters with less education tend to have lower turnout rates. Finally, this analysis does not travel deeply into the analytical when it comes to the spatial organization of polling places. More work must be done in order to draw conclusions from the spatial organization of the polling places. While the main objective of this project was completed with the formation of the index, it has the potential to move past the exploratory and more into analytical stages with time.

> Data Sources: Tufts M: Drive, http://recorder.maricopa.gov/pollingplace/ **Projection:** GCS_WGS_1984

Median HH Income





