

A Cardinal That Does Not Look That Red: Analysis of a Political Polarization Trend in the St. Louis Area

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Introduction

The political polarization of areas is a growing trend in the political environment of the United States. “The Red & The Blue: Political Polarization Through the Prism of Metropolitan Milwaukee,”¹ an article published in the Fall 2014 edition of the *Marquette Lawyer* magazine, poignantly illustrates the phenomena occurring in the metropolitan area of Milwaukee, Wisconsin. Different communities are growing, in close proximity to one another, and their varying values, needs and expectations led to the development of different political opinions and voting patterns, creating a political polarization within a limited area.

“The Red & The Blue” article highlights the phenomenon occurring in the Milwaukee metropolitan area for decades now. The article defines the area as “the most polarized part of a polarized state in a polarized nation.” The two main parties’ electorates deeply differ and are distant from each other not only in terms of ideas but also in localization. The Democratic Party has the majority of the votes in Milwaukee, with more than 75 percent of the votes for the 2012 presidential race. More than 50 percent of the voting results were for the Republican Party when going out of the city boundaries, and the results attain more than 75 percent in most of the three rural counties surrounding Milwaukee. The authors in the Milwaukee study compared the voting data to racial makeup. They created a map showing the presence of different races within the city, with white, black and

Latino people living there, and the flat trend of only white people living in the rural areas surrounding the city of Milwaukee. A comparison with the population density by race and ethnicity rapidly highlights a correlation between the environment in which people evolve and their voting trend.

Due to post-industrial and more recent history, St. Louis, Missouri, is a city that suffers from a phenomena of political polarization, similar to the one studied in Milwaukee. White and black populations live in different areas and have created a political divide that influences and is influenced by urban policies.

Methodology

The goal of this paper is to map various demographic and political data for the St. Louis metropolitan area and see what patterns emerge. Future research could involve a deeper analysis as to *why* the patterns exist; this research is essentially a first step in determining what the patterns are.

Through the analysis of the diversity of population, income per household, and the voting results for the two main parties, Democratic and Republican, this research hopes to locate some points that could relate to the Milwaukee example and support the political polarization phenomena in St. Louis metropolitan area.

A Geographic Information System (GIS) was used to analyze political patterns in the St. Louis area. GIS is a software system that allows for the spatialization (mapping), comparison, and analysis of various layers of data. The maps in this paper were created using ArcMap, software provided by ESRI, the leader in the industry.

The first maps created for this project are the ones showing the diversity of populations in the St. Louis area, and specifically the housing segregation between white and black populations. The maps displaying these for the St. Louis area have been created with data

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¹ Craig Gilbert, “The Red & The Blue: Political Polarization Through the Prism of Metropolitan Milwaukee,” *Marquette Lawyer (Milwaukee)*, Fall 2014, 9.

from the Missouri Spatial Data Information Service,² and are displayed by census tracts.

The Diversity Index is a measure of exposure, highlighting the ethnic and or social diversity of each unit of an area. It allows for identification of mono-ethnic areas and multi-ethnic ones; a score of 0 is assigned to spatial units that are completely homogeneous; heterogeneous spatial units are designated with a value of 1. The Diversity Index is a measure widely used in the United States, for political, economic or cultural analysis. It is possible to calculate it here since race and ethnicity are part of a person's identity and are commonly deliverable in the demographic statistics. However, it is not to be used that easily in other countries, where such attributes from individuals are more discrete, and should not be asked publically. "Tracking the diversity of our society is crucial to understanding the shifting demographics of race and ethnicity in the United States," said Kyle Reese-Cassal in an Esri White Paper about the Diversity Index.³ The population is divided into seven groups, and each group can have a Hispanic or non-Hispanic origin, which leads to a total of fourteen distinct race/ethnicities clusters. The diversity index maps have been created based on the populations present in each census tract (see *Figure 1 and 2 on pages 17 and 18*). With the same data, a map displaying the population density by race and ethnicity in the St. Louis metropolitan area also has been created, focusing on the white and African-American populations (see *Figure 3 on page 19*).

The income map has been made using the total median income per household in every census tract. The data used in this map have been obtained through the U.S. Census Bureau.⁴ The results have been split in six categories, using an equal interval method, from very low income to very high income, for a better reading of the results (see *Figure 4 on page 20*).

The voting maps have been created based upon the voting results of the 2008 presidential elections. The

data used in these maps have been obtained through the U.S. Census Bureau. Results are displayed by precincts, subdivisions used by police and for voting purposes, using an equal interval method (see *Figures 5 and 6 on pages 21 and 22*).

Results

When comparing the maps, the results suggest that political polarization is definitely occurring in the St. Louis metropolitan area.

The Diversity Index in the St. Louis area suggests that diversity is increasing between 2000 (see *Figure 1 on page 17*) and 2010 in the sense where more dark tracts (which indicate greater racial diversity) appear in the 2010 map, especially in the southern part of St. Louis City, which has the highest diversity scores, ranging from 0.61 to 0.75. The Diversity Index operates on a scale between 0 and 1, with a score of 0.75 indicating that the area is highly diverse racially. Northern parts of St. Louis County and southeastern parts of St. Charles County also have seen increases in the diversity, although the Index is still quite low at measures between 0.21 and 0.40.

The population density by race and ethnicity map shows that diversity is low in north St. Louis city; mostly African-American people live in the northern area. Going further from the hearth of St. Louis, the north of St. Louis County and the eastern tracts of the city are more diverse, as the tracts are filled with a mix of blue dots, representing the white population, and brown dots, representing the black population. The southern parts of St. Louis County and St. Charles County are not diverse; the high proportion of blue dots in the tracts show that they are mostly populated with a white population.

When compared with the political results shown in the Democratic and Republican results maps, a trend of political polarization can be observed. Indeed, the northern part of St. Louis city and the very northeastern part of St. Louis County have extremely high voting results for the Democrat Party, from 80 to 100 percent in most of the voting precincts. The voting results in the second zone, from the north of St. Louis County to the southeastern part of the city, range from highly Democratic to pretty equal for both parties. Maps show that results are comprised between 40 and 60 percent in every precinct for both Democratic and

² Missouri Spatial Data Information Service. Accessed April 2015, <http://msdis.missouri.edu/data/census/census2010/geographicdata.html>.

³ Kyle Reese-Cassal. ESRI. *2014-2019 ESRI Diversity Index*. (Redlands, California, 2014), 1.

⁴ United States Census Bureau. Accessed in April 2015, <http://quickfacts.census.gov/qfd/states/00000.html>.

Republican parties. Then, the western parts of St. Louis County and St. Charles County have low voting results for the Democratic Party, but high results for the Republican Party: most of the precincts show votes of more than 60 percent in favor of the Republicans.

Also, the income map displays a relationship between voting patterns and income. Incomes are higher in the southern part of St. Louis County where Republican voting results are stronger, and lower incomes are located in the tracts where Democratic patterns are highly present.

Discussion

As previously mentioned, the goal of this paper is to investigate the possible spatial patterns of political polarization in the St. Louis metropolitan area. Based on preliminary investigation of the maps, strong patterns are observed and seem to suggest the existence of this phenomenon.

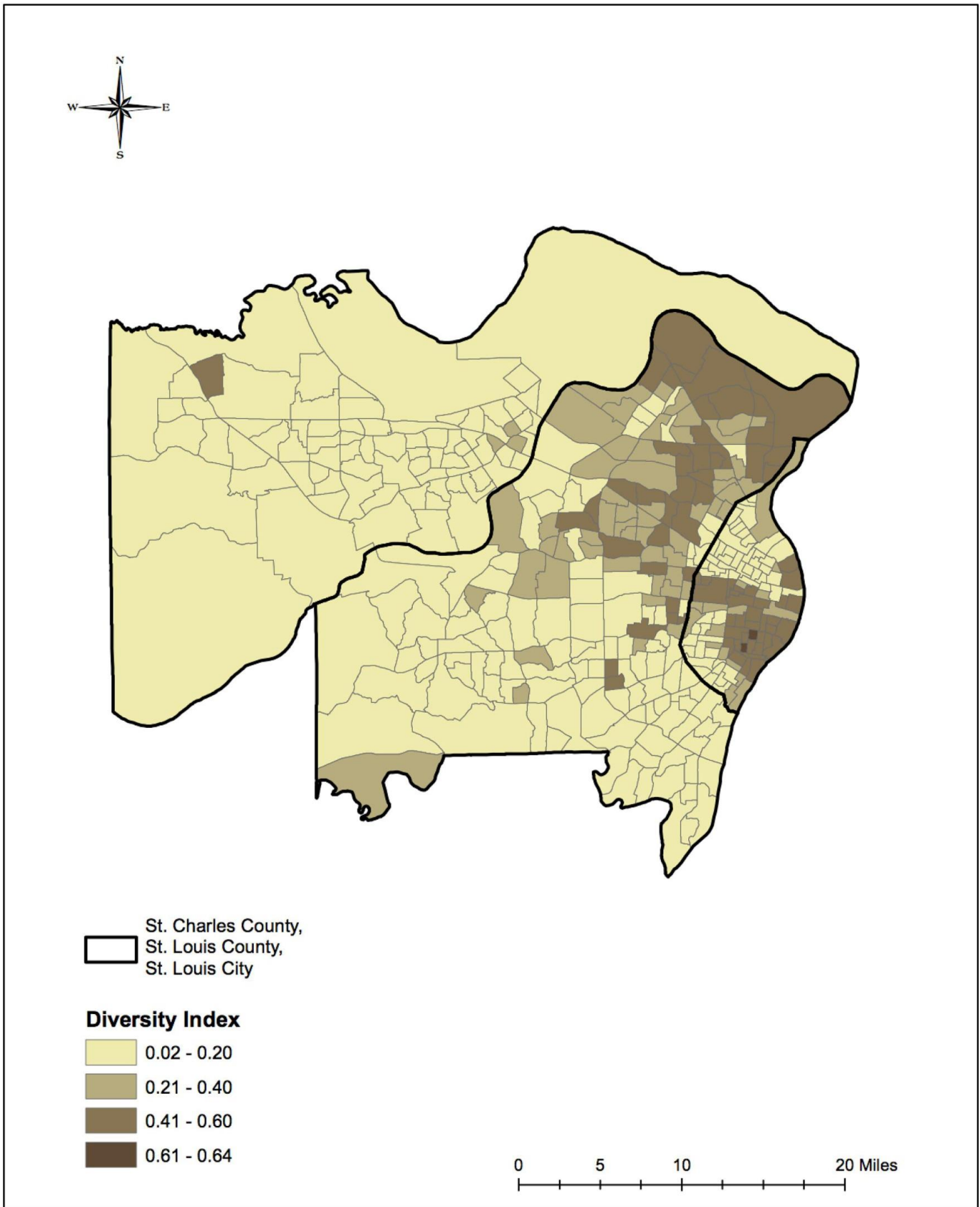
Cities are the cradle of social diversity and therefore of a certain Democratic tendency, and to a certain extent the phenomena of political polarization. The city is a receptacle of material investment, including infrastructure, transportation, roads, and bridges, as

well as immaterial investment, such as research and development, and human capital, which are a key part of the economy of knowledge. A variety of populations are therefore attracted to the central city and a greater social mix appears, created by the wide range of jobs offered. This is necessary for this complex but dynamic organization, the city, to work and keep growing. It is demonstrated by the maps, where a higher diversity, but also greater incomes and a more democratic voting pattern, are observed.

Future research will explore why these patterns have emerged in the St. Louis metropolitan area, and also investigate at a finer scale some of the anomalous results that emerged when looking at these maps. Overall patterns have emerged clearly on a large scale, but, for instance, some tracts can be seen to have very high income but also a strongly Democratic voting result. The causes for these anomalies could be investigated in future studies. Also, a lack of access to the 2012 data has been slowing the research on this paper, but a comparison of the voting results from the 2012 election with the 2008 results would help to have a stronger understanding and give a trend to this phenomenon of political polarization in the St. Louis metropolitan area.

Figure 1

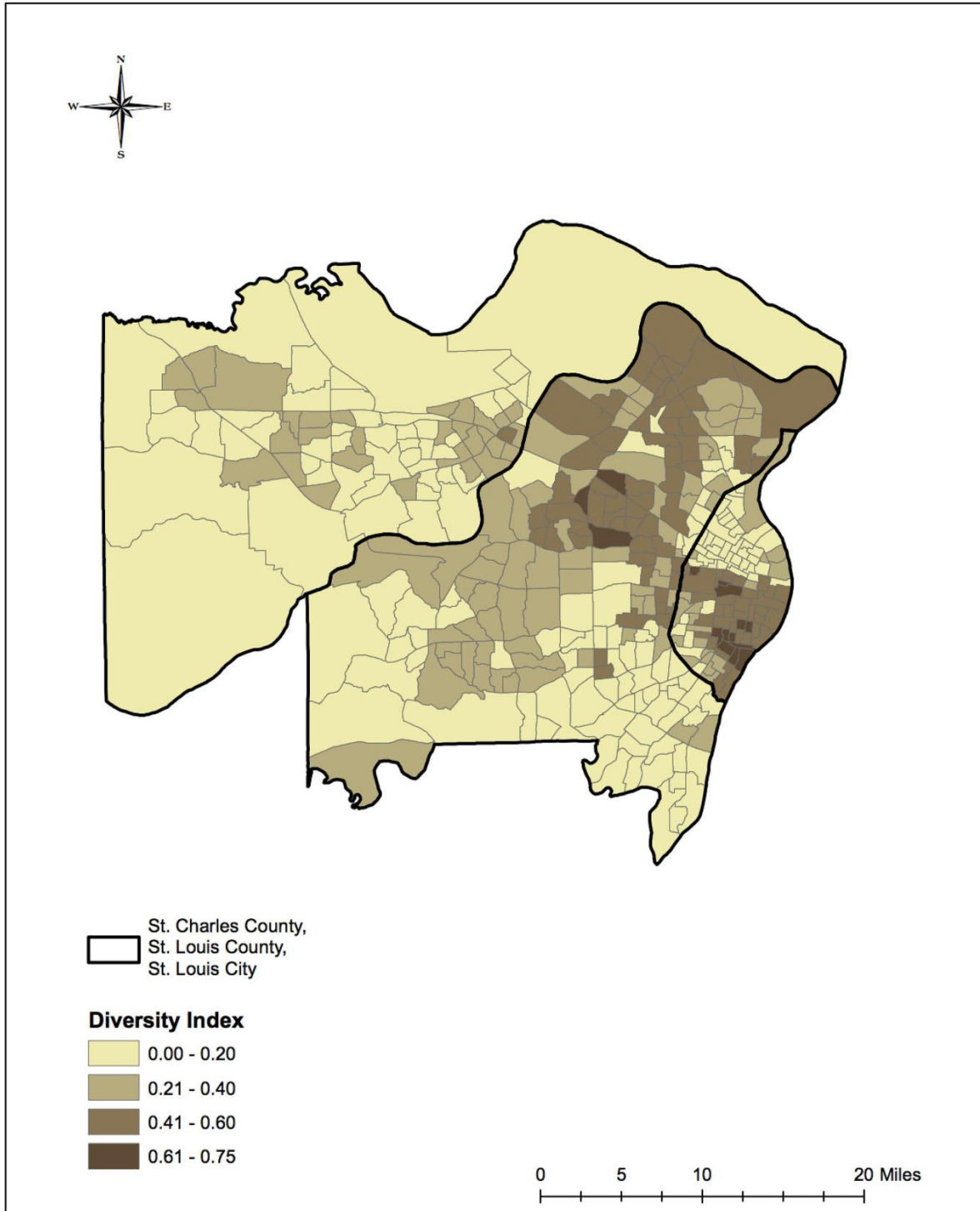
Diversity Index in the St. Louis Area in 2000



Source: Census 2000
Cartography by: Clemence Nogret-Pradier, April 2015

Figure 2

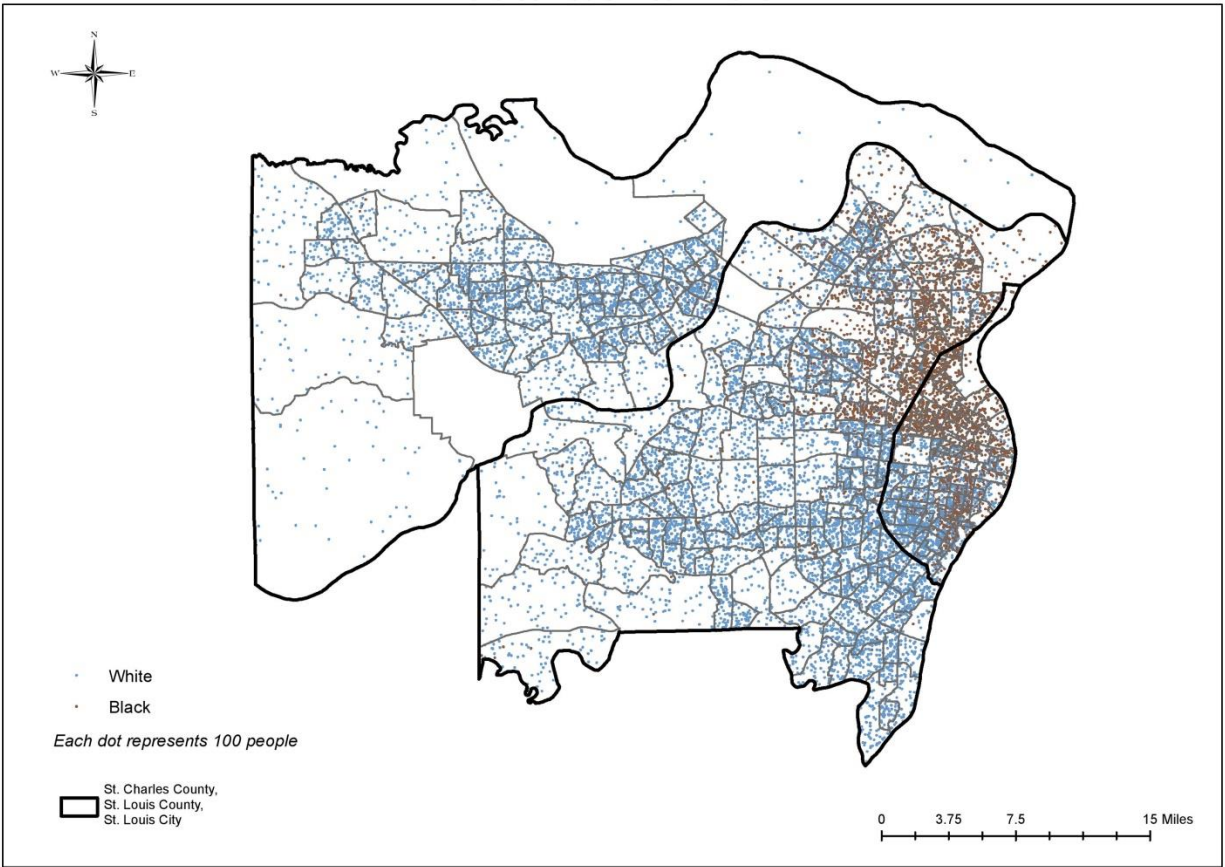
Diversity Index in the St. Louis Area in 2010



Source: Census 2000
Cartography by: Clemence Nogret-Pradier, April 2015

Figure 3

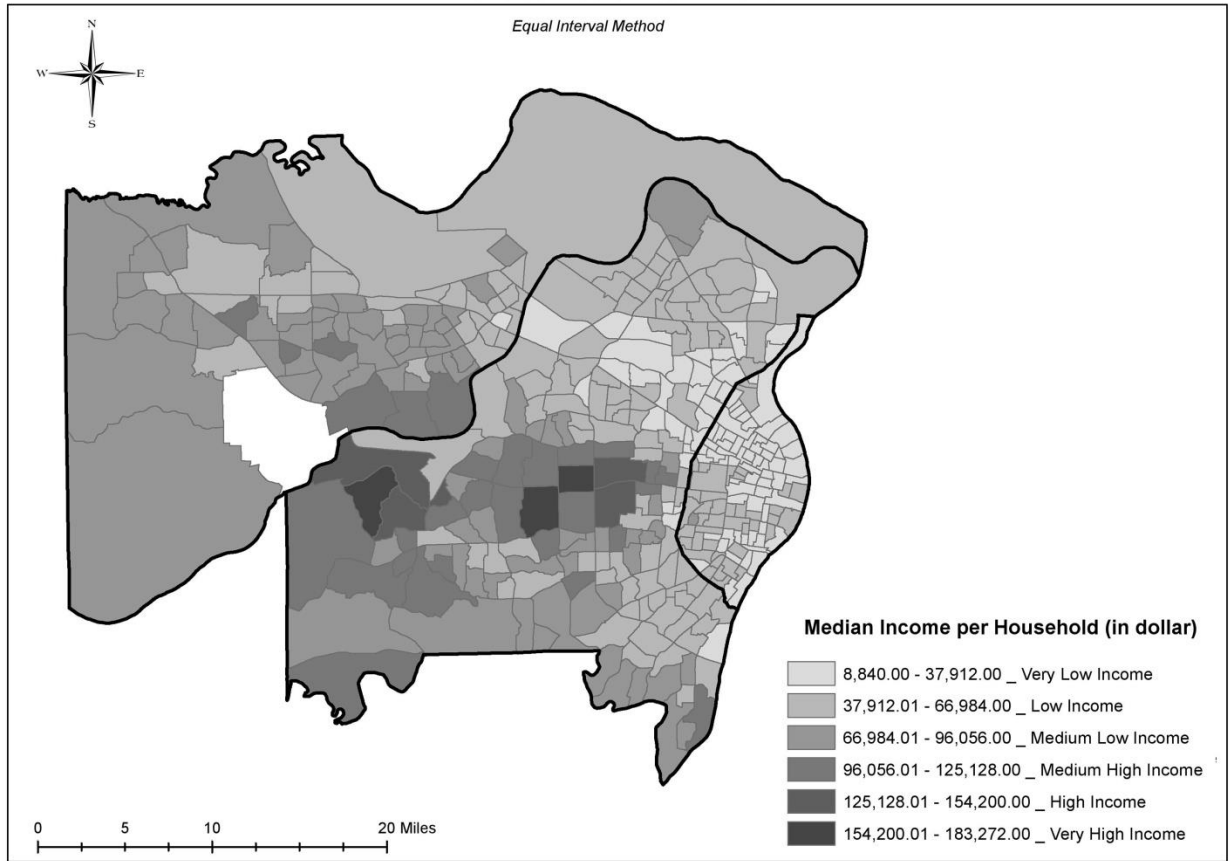
Population Density by Race and Ethnicity in the St. Louis Area in 2010



Source: Census 2000
Cartography by: Clemence Nogret-Pradier, April 2015

Figure 4

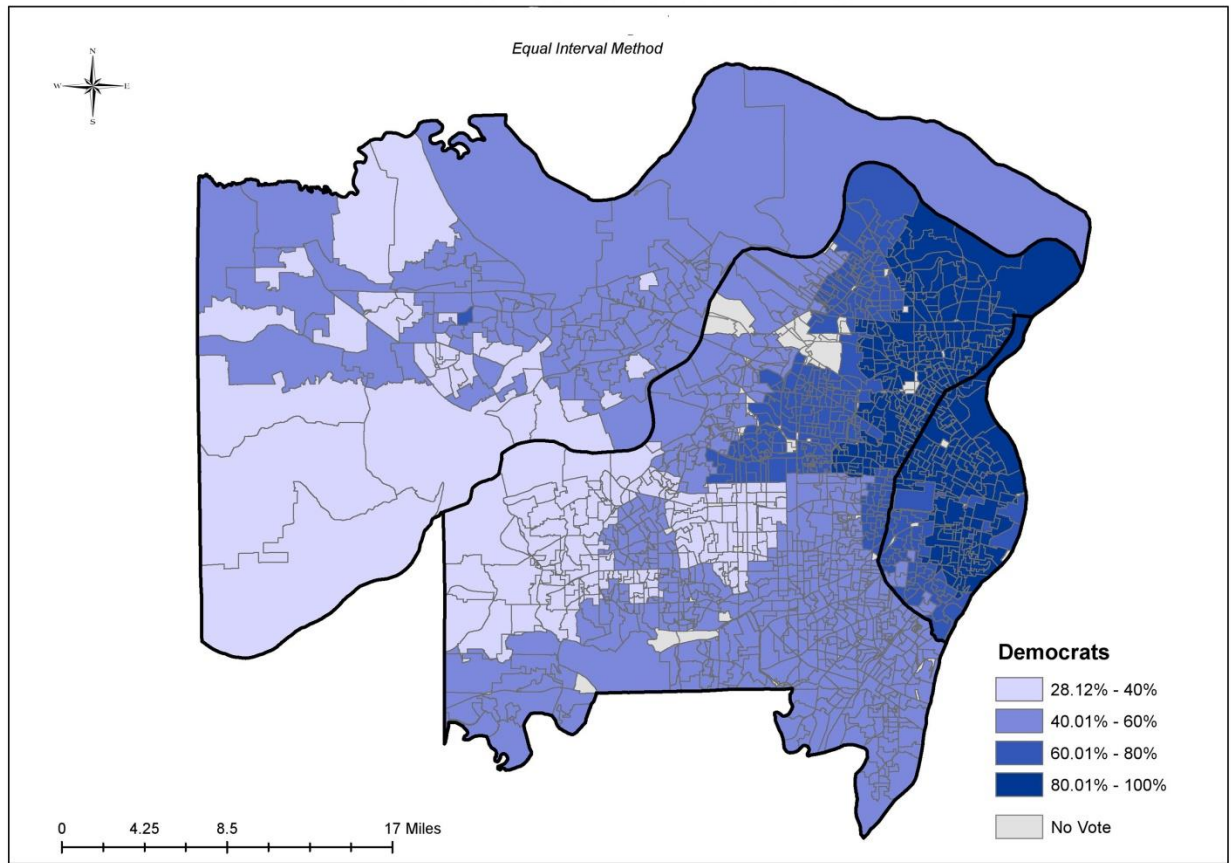
Median Income per Household in the St. Louis Area in 2010



Source: Census 2000
Cartography by: Clemence Nogret-Pradier, April 2015

Figure 5

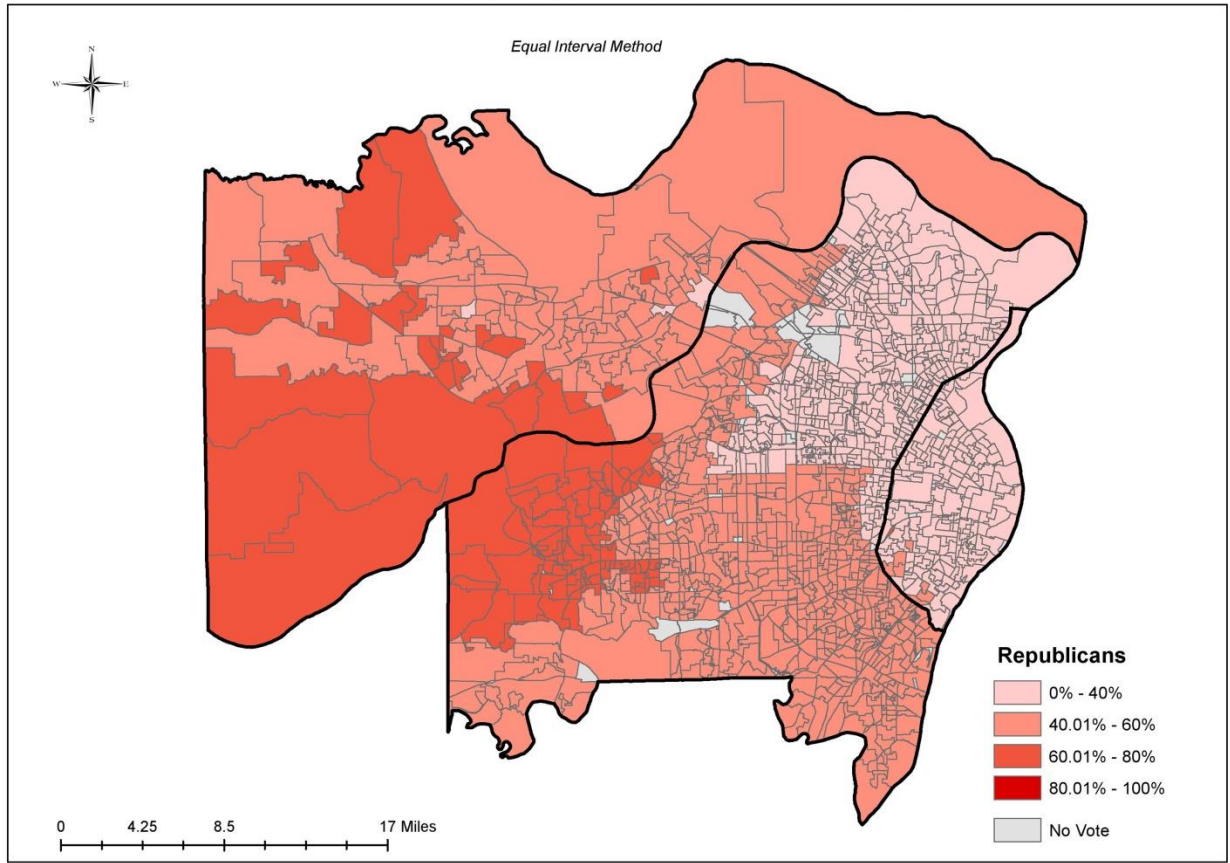
Results for the Democratic Party in the 2008 Elections in the St. Louis Area



Source: Missouri Spatial Data Information Center
Cartography by: Clemence Nogret-Pradier, April 2015

Figure 6

Results for the Republican Party in the 2008 Elections in the St. Louis Area



Source: Missouri Spatial Data Information Center
Cartography by: Clemence Nogret-Pradier, April 2015