



Based on my experiences growing up in Wichita Falls, I am interested in analyzing the racial population changes in the city. Since the history of the segregation of the Wichita Falls school system has been relatively well documented, I decided to analyze a sample of black and white owned businesses in the city to determine whether black and white owned businesses are clustered in a certain area of the city. I wanted to determine whether the economy of Wichita Falls was stratified by race. I am specifically focusing on Hispanic, Black, and White populations.

### Research Questions

- Is Wichita Falls still racially segregated and to what extent have racial populations changed in the last forty years?
- Has the city become more "integrated" or have different racial populations become more clustered?
- Can the locations of black and white owned businesses be indicators for population segregation?

### Methodology

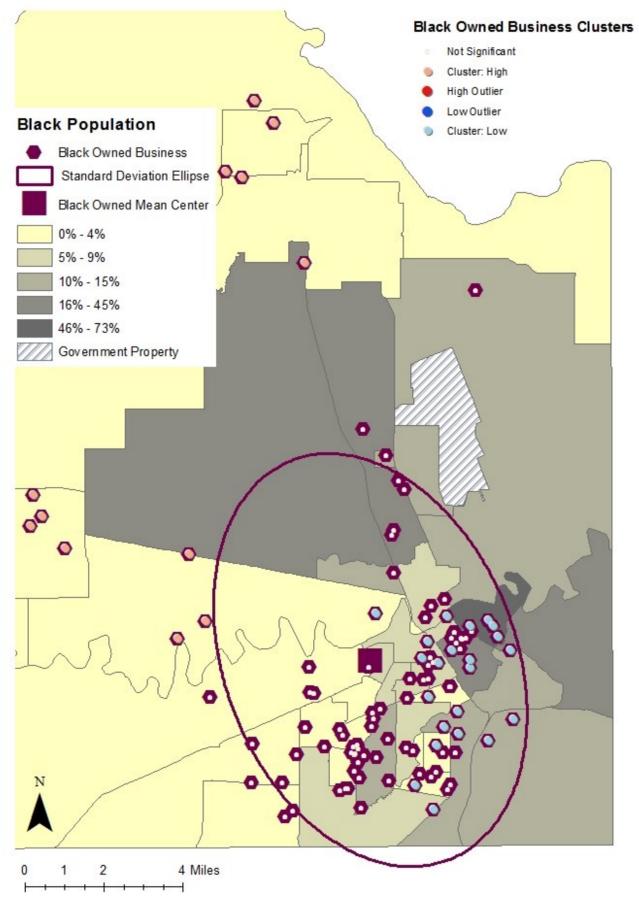
#### Population Demographic Maps

Census data as well as demographic information from the National Historic GIS website was used to create the population heat maps. These were created through the use of an attribute join between the Tiger Line Shape files and the racial data. I wanted to see specifically where Hispanic and Black populations were clustered in the city and so I chose to map both populations together. I created separate maps for White populations to more clearly be able to see racial distributions in the city. I used census block groups to map different areas within the city and Wichita County.

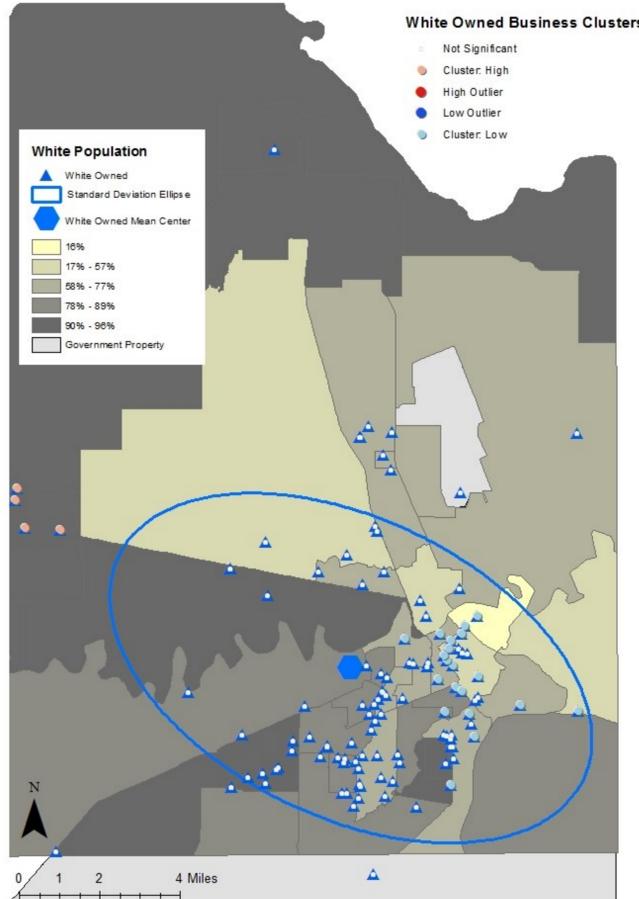
#### Business Mapping

I used Reference USA to find data for black and white owned businesses by searching based on Executive Ethnicity. I took a random sample of 125 verified and unverified black owned businesses and 125 random white owned businesses and geocoded them to the map of Wichita Falls. It is key to note that there were only 149 results for black owned businesses, while there were 8637 results for white owned businesses. I analyzed this data by using spatial statistics tools to determine the standard deviation ellipses of both sets of data. Additionally, I found the Global and Local Moran's I to determine whether the data was truly random and whether clusters existed in the data. Finally, I found the mean center of both the white owned businesses and black owned business data.

### Black Owned Businesses



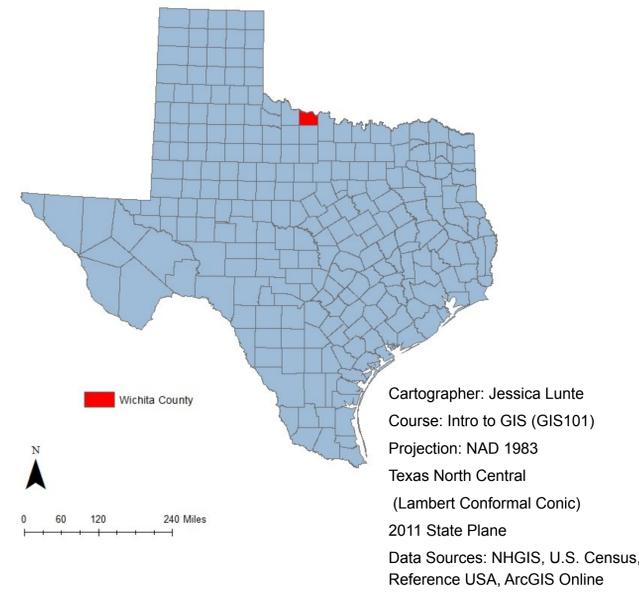
### White Owned Businesses



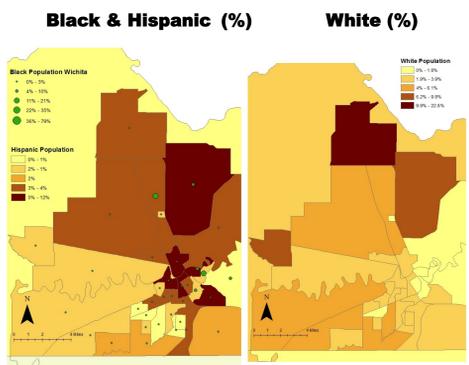
### Results

From the population demographic maps it is evident that based on the most recent census, the white population in Wichita Falls has moved out of the city and towards the outskirts of the city. The Hispanic population in Wichita Falls has concentrated more towards the center of the city over time. The Black population in the city has remained concentrated in the Southeast of the city.

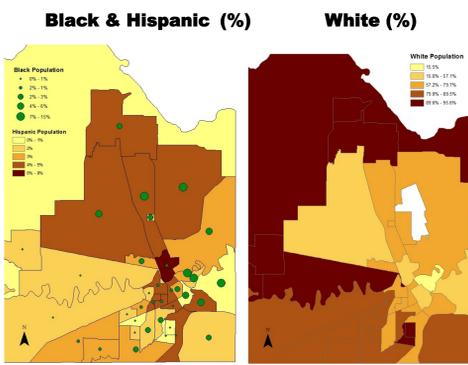
After analyzing the black and white owned businesses in the city I found that both samples of data are clustered around the center south of the city, which is where the economic and business center of the city is. However, White owned businesses have a standard deviation ellipse that covers more of the West of the city, which correlates with the high percentage of the white population in the West of the city. Black owned businesses are more focused towards the center-east of the city, which correlates with the strong black population in the East. From this data I concluded that the populations in Wichita Falls are still racially segregated.



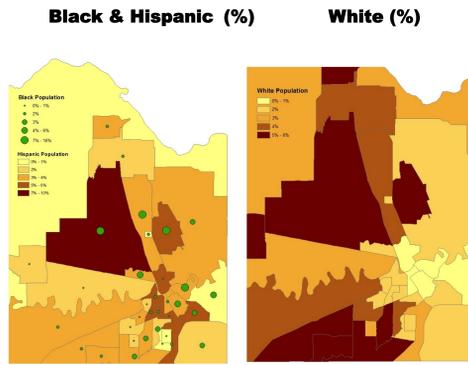
### Population Demographics 1980



### Population Demographics 1990



### Population Demographics 2000



### Population Demographics 2010

