Median Income Based on United States Census Tracts and its Geographical Relationship to Quality of Life in Greenville County
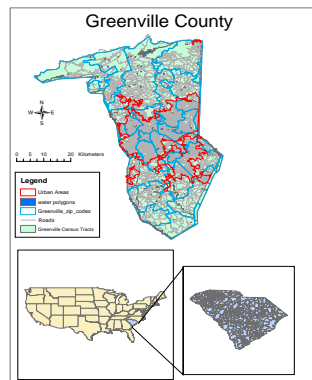
Rebecca Muth

I.Introduction

The main objective of this project is to establish a geographical relationship between geographical distribution of facilities and utilities that are considered important for the day to day functioning of a family, household, and median income. I gathered median income, based on 2000 United States Census Tracts and analyzed the median incomes found in Greenville County. Locations and facilities such as shopping malls, educational institutions, libraries, hospitals, fire departments and state parks were also obtained from different sources, which were used as a proxy to understand the quality of life. After I gathered this information I focused on locations of Quality of Life data points in Greenville County to distinguish if there could be any relationship established between socio-economic status and distance from a variety of quality of life data locations. I hypothesized that the higher median income localities would be closer in proximity to more high quality social opportunities.
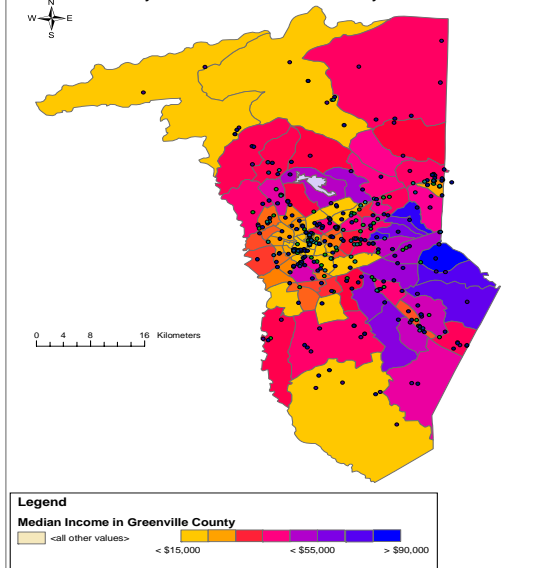
II. Data

The sources for my data include the 2000 U.S. Census as well as the South Carolina Department of Commerce's 2000 Technical Assistance Planning Grant Program. The S.C. department of commerce data is projected on the GCS North American_1983 Coordinate system while the Census data is projected on the D_Clarke_1866 Datum Coordinate system.
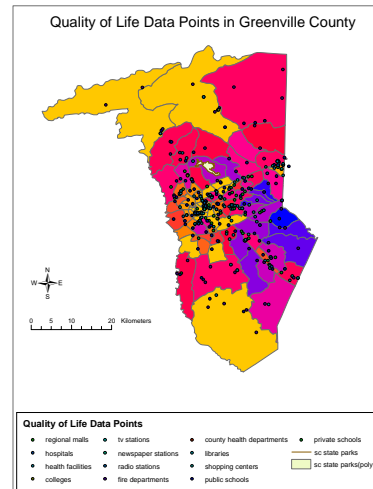
III. Results

First I established the geographic boundaries of Greenville County. This map details Greenville County in reference to South Carolina and the United States in its entirety. I then added some general background information about the county; such as urban areas, county roads, water boundaries, zip code information, and lastly the census tracts assigned by the federal government.
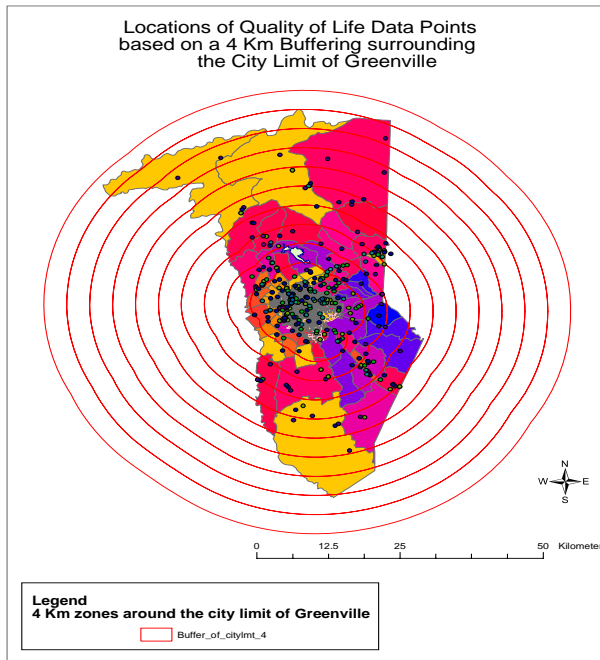
Greenville County

Legend
- Urban Areas
- water polygons
- Greenville_zip_codes
- Roads
- Greenville Census Tracts

Greenville County Median Income with Quality of Life Data Points

Legend
Median Income in Greenville County
- all other values
- < $15,000
- < $55,000
- > $90,000

The next step entailed establishing the median incomes for each census tract. This map shows the income breakdown in reference to the general quality of life data points. The higher median incomes are located on the west side of the county just south of the city limits. There are a few higher median income tracts located just north of the city on the west wide of the county as well. In general lower median incomes were found surrounding the city and in the outskirts of the county, specifically the northern and southern tips.

Quality of Life Data Points in Greenville County

Quality of Life Data Points
- regional malls
- hospitals
- health facilities
- colleges
- tv stations
- newspaper stations
- radio stations
- fire departments
- county health departments
- libraries
- shopping centers
- public schools
- private schools
- sc state parks
- sc state parks(polys)

Locations of Quality of Life Data Points based on a 4 Km Buffering surrounding the City Limit of Greenville

Legend
4 Km zones around the city limit of Greenville
- Buffer_of_citylmt_4

I then established buffering zones every 4 Km surrounding the city limit of Greenville. I wanted to see if there was a trend surrounding distance from the city and quantity of quality of life data points. The median income is projected in the background to provide further evidence of the link between higher median incomes and proximity to quality of life data points. The highest median incomes do not have numerous quality of life data points located in close proximity, however, there are data points within a moderate distance.

The specific quality of life data points are detailed in this map. The majority of the quality of life data points are located in the center of the county, surrounding the city limits of Greenville. On the outskirts of the county, specifically the north end and south end of the county, the distribution of quality of life data points decreases in number and increases in distance from one another. There is a slight pull towards Spartanburg County as seen in the slightly higher concentration located around the center of the county on the west side.

	Within City Limits	Within 4 Km of City Limit	4 Km to 8 Km	8 Km to 12 Km	Outside 12 Km	Total
TV Stations	0	0	1	0	0	1
Shopping Centers	5	4	2	4	0	15
Regional Malls	2	1	0	0	0	3
Radio Stations	11	4	0	1	0	16
Public Schools	15	34	16	10	18	93
Private Schools	16	23	6	3	2	50
Newspaper Stations	7	0	1	0	2	10
Public Libraries	6	4	2	2	3	17
Hospitals	3	1	1	3	1	9
Health Facilities	29	26	10	7	19	91
Fire Stations	0	1	8	8	20	37
Colleges	2	0	1	0	1	4
County Health Facilities	1	0	0	0	0	1
State Parks	0	0	1	0	2	2

This table shows the number and type of quality of life data points within the buffering zones surrounding the city of Greenville. By far the majority of quality of life data points fall within 12 Km of the city limits of Greenville. The only instance this is not the case is with fire departments, more fire departments are located outside 12 Km of the city limits than within 12 Km of the city limits. Overall the largest amount of quality of life data points fall within the city limits, closely followed by the number located within 4 Km of the city limits.

IV. Conclusion

Overall the highest amount of quality of life data points fall within the city limits of Greenville. The highest median incomes are not directly associated with this trend. The highest median incomes are mostly located from 8 to 12 Km from the city limit. This is most likely due to the fact those who can afford to live pretty much where they choose most likely will not want to live in congested areas with lots of automobile or people traffic. Those with the means to live where they choose will still want to have easy access to quality social entertainment and this is probably the reason they still choose to live within 12 Km of the city limit. The lower median incomes are located closer to the city limits, surrounding the city on all sides, at the very northern and southern tips of the county. The localities close to the city will probably have lower housing prices due to the very near proximity to congestion and the localities further away probably have lower housing prices due to the longer distance between them and quality social entertainment.

V. References

Jones, Ken. Big-Box, The Big Screen, The Flagship and Beyond: Impacts and Trends in the Greater Toronto Area -- Toronto, ON. Centre for the Study of Commercial Activity, Ryerson Polytechnic University, 1998.

Russell, Cheryl. The official guide to the American Marketplace: The real facts about how rich, well-educated, healthy, family oriented, hard-working, and diverse we are.-- 2nd. -- Ithaca, New York. New Strategist Publications Inc. 1995.

VI. Acknowledgements