Poverty in Alachua County

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April 27, 2009

URP 4273

Main Goal

The main goal of this project was to identify where the highest levels of poverty are in Alachua County. The poverty levels were found by compiling various factors that influence poverty. A Composite Material Poverty Index (CMPI) was created, which ranked the census block groups in terms of financial wealth. Using the CMPI, the three materially poorest census block groups were identified. These census block groups were then analyzed in terms of their access to services related to Maslow's Hierarchy of Needs, which illustrated levels of poverty based not only on financial aspects, but also on demographics and access to services. Using the combination of these three areas of information, the location of the highest levels of poverty was determined.

Background

Poverty is defined differently across countries and cultures. Within the United States of America, the common understanding of poverty is based solely on physiological needs such as clothing, shelter, and food. A much broader understanding of poverty can be seen as the lack of wealth, material goods, and access to services that one needs to "fit in" with the society they live in[1].

In 2000, the level of poverty in Alachua County (22.8%)[2] was almost twice as high as the national level (12.4%)[3]. Alachua County is spatially mostly a rural county, with a few urban areas such as Gainesville. About 25% of the population of Alachua County, which is 217,955[4], is made up of students that attend the University of Florida in Gainesville. The lack of income of many students can artificially raise the poverty rate of Alachua County, even though these students have outside sources of financial support from parents and financial aid. Not surprisingly, the areas surrounding the University of Florida campus are relatively wealthier than many parts of Alachua County, especially the east Gainesville area and the outer rural clusters around the periphery of Alachua County.

Public assistance is a good indicator of poverty because when one's income is below a certain level, the government is available to offer financial assistance since one may not be able to afford necessary goods and services. Juvenile offenses are also an indicator of poverty, since the lack of money and education often leads one to commit crimes to obtain the means to survive. It can also be argued that people who commit juvenile offenses are those who are at a low level within the social class hierarchy.

The presence of poverty is an indicator that the local government can do more to provide services to its citizens, as the free market alone will not guarantee that everyone will have access to basic goods and services needed to survive.

Scope and Characteristics of Study Area

The study area is the area within the Alachua County boundary. The characteristics of Alachua County are somewhat typical of a low-population county.

Alachua County has 217,955[4] people living within the borders. About 73% percent of residents are white and 24% percent are of other races[4]. The next highest ethnic group after whites is the black population, which accounts for 19%[4]. Of the total population of Alachua County, approximately 53,400 are college students. There is a small population on the east side of Gainesville that has a majority of

black residents. Alachua County also has a higher female population than a male population[4]. The average age of a man living in Alachua County is 29, while the average age for a female is 32 years old[4]. The average household size is 2.34 people[4].

The average salary for the county is approximately $26,800[4]. Total employment for the year 2000 was approximately 110,000 people. Ironically, the highest average education completed in Alachua County is high school, or some type of equivalent. However, the highest enrollment in a level of school is college. Most residents of Alachua County devote their days to educational services. Gainesville Correctional Institution is within Alachua County and on the east side of Gainesville across from the Gainesville Regional Airport.

Objectives

To reach the main goal, three things need to be determined: 1) where the materially poor are located, 2) what are the demographics of the materially poor (who are the poor), and 3) what proximity the poor have to essential services and needs. To find where the poor are located, the census block groups will be separated to determine which area has the least income, most reliance on government assistance, and has the most substandard housing. The three most materially impoverished census blocks will be demographically analyzed; the most affluent and the three poorest areas will be compared by looking at age, race, gender, employment, and education. After analyzing the demographics, a final assessment of their location in relation to services will be made to determine the most thoroughly poorest census block in Alachua County.

Methodology

Objective 1
A Composite Material Poverty Index (CMPI) was created to incorporate various financial aspects related to poverty. These aspects were 1) per capita income disparity, 2) per capita federal public assistance, 3) level of free and reduced lunch students, and 4) level of substandard housing.

The formula used for per capita income disparity was based on a household size of 3 in Alachua County and thus, a 1999 federal poverty level of $13,880 as a per capita income[5]. The index value for per capita income disparity was calculated as ($13,880 – Per Capita Income)/$1000.

The index value for per capita federal public assistance was calculated as
[(Aggregate Public Assistance) – (Population – UF Population)]/$100.

The index value for free and reduced lunch students was calculated by finding the percentage of students in each census block group that received free or reduced lunch, and then ranking the census block groups from 1 to 9 (1 being the lowest percentages of free or reduced lunch, 9 being the highest percentages). Each census block group's ranking was the index value for this category.

The level of substandard housing was calculated by weighting the different levels of substandard housing in terms of severity in the following formula:
[(low * 1)+(medium * 2) + (high * 3)]/[(Population – UF Population)].

The four index scores were added for each census block group and the census block groups were ranked in order of lowest to highest CMPI scores. The richest census block group (the one with the lowest CMPI score) and the three poorest census block groups (the ones with the highest CMPI score) were selected for demographic analysis.
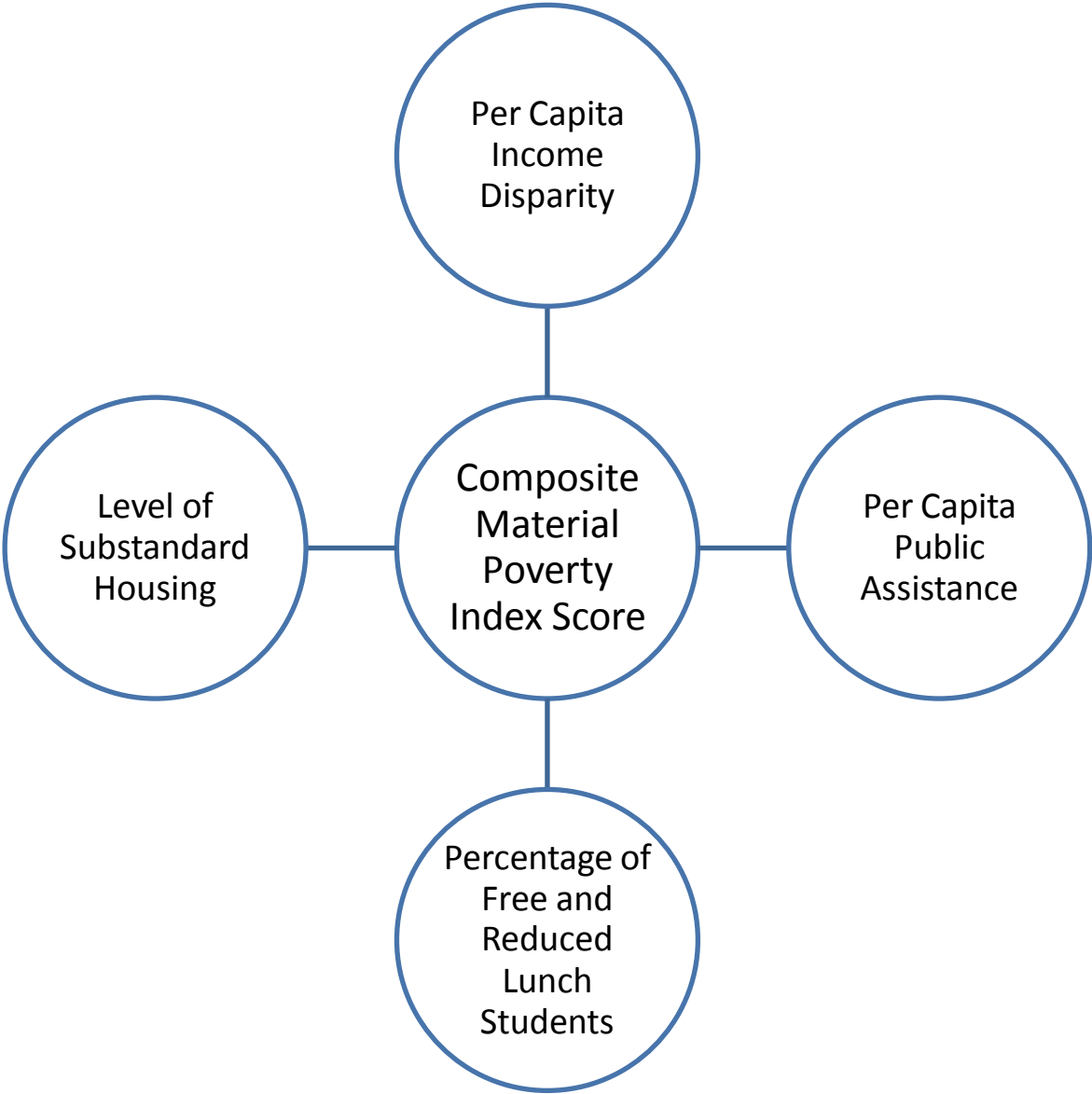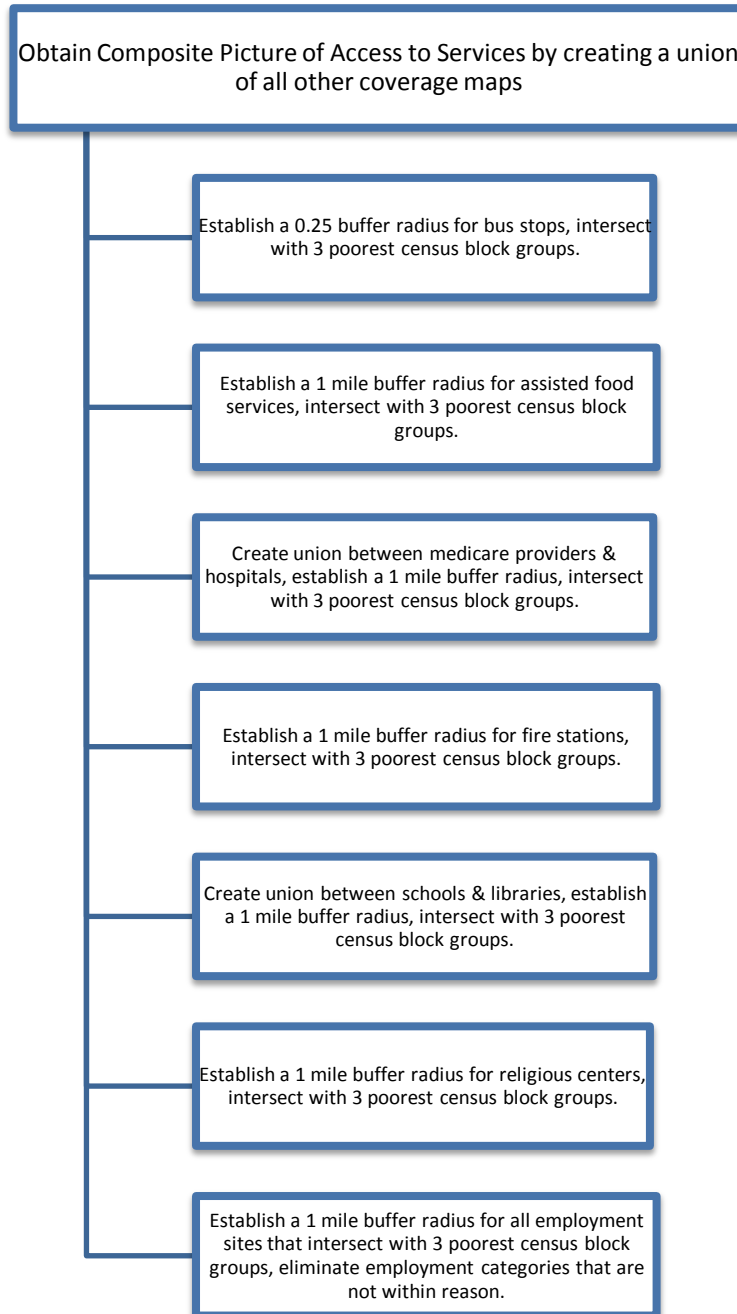

Objective 2

The one richest and three poorest census block groups were demographically analyzed in terms of education levels, race, gender, age, and family employment rate. The results were compared and contrasted between the one wealthiest and three poorest census block groups for any patterns.

Objective 3

The three poorest census block groups were intersected with buffer radii of various points of services. These points were bus stops, assisted food service centers, health care facilities, fire protection, schools and libraries, religious centers, and reasonable employment opportunities. The resulting coverage maps were overlaid on top of one another to create a composite picture of the census block groups' access to services to determine areas lacking access. For all services, a radius of 1 mile was used, as this was determined to be the absolute maximum distance to walk for any service. The exception was for bus stops, for which a 0.25 mile acceptable walking radius was used. For reasonable employment access, the sites of employment that were categorized under categories deemed not suitable for people in poverty work in were eliminated, such as "Professional, Scientific, and Technical Services."

Obtain Composite Picture of Access to Services by creating a union of all other coverage maps

Establish a 0.25 buffer radius for bus stops, intersect with 3 poorest census block groups.

Establish a 1 mile buffer radius for assisted food services, intersect with 3 poorest census block groups.

Create union between medicare providers & hospitals, establish a 1 mile buffer radius, intersect with 3 poorest census block groups.

Establish a 1 mile buffer radius for fire stations, intersect with 3 poorest census block groups.

Create union between schools & libraries, establish a 1 mile buffer radius, intersect with 3 poorest census block groups.

Establish a 1 mile buffer radius for religious centers, intersect with 3 poorest census block groups.

Establish a 1 mile buffer radius for all employment sites that intersect with 3 poorest census block groups, eliminate employment categories that are not within reason.

Results and Discussion

Objective 1

Poverty is predominately in the east side of Gainesville. There are three areas in particular that are the most impoverished. The first area is a triangular area that begins where East University Avenue and Hawthorne split to 43rd Street; this area is census block group number 26. The second area is a smaller area on Northeast Waldo Road between Northeast 16th Avenue and Northeast 23rd Avenue; this area is census block group number 93. The third area is also on Northeast Waldo Rd between Northeast 23rd Street and Northeast 53rd Avenue; this area is home to Gainesville Regional Airport and is census block group 92. The wealthiest area was a census block group in northwest Gainesville, census block group 45.

Before the project started, it was hypothesized that the area with the highest poverty levels would be located on the east side of Gainesville. The hypothesis was conceived from driving around the area and observing the houses and neighborhood amenities within the area during our residence in the county. The map below shows a map of Alachua County with the census block groups shaded by CMPI score.
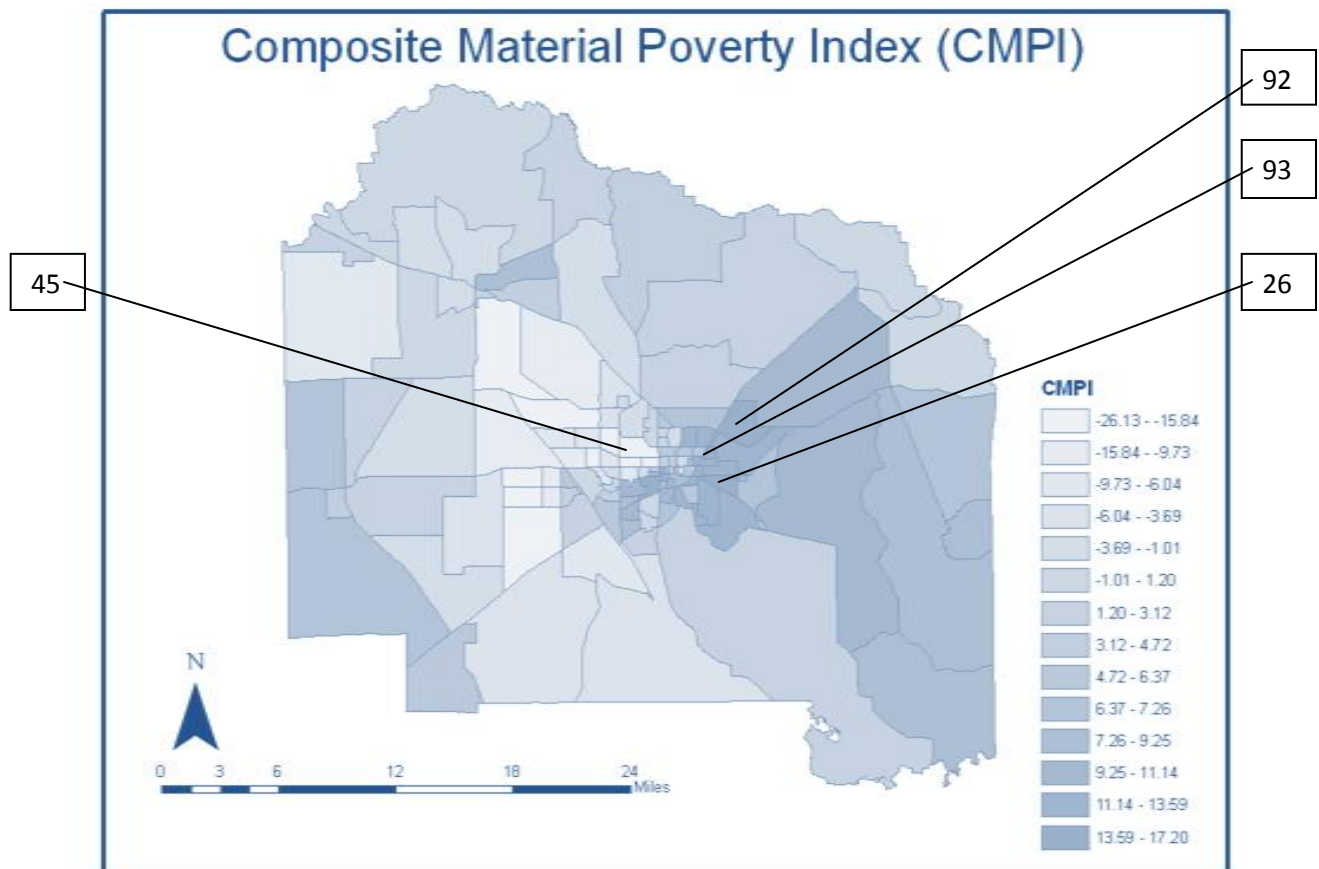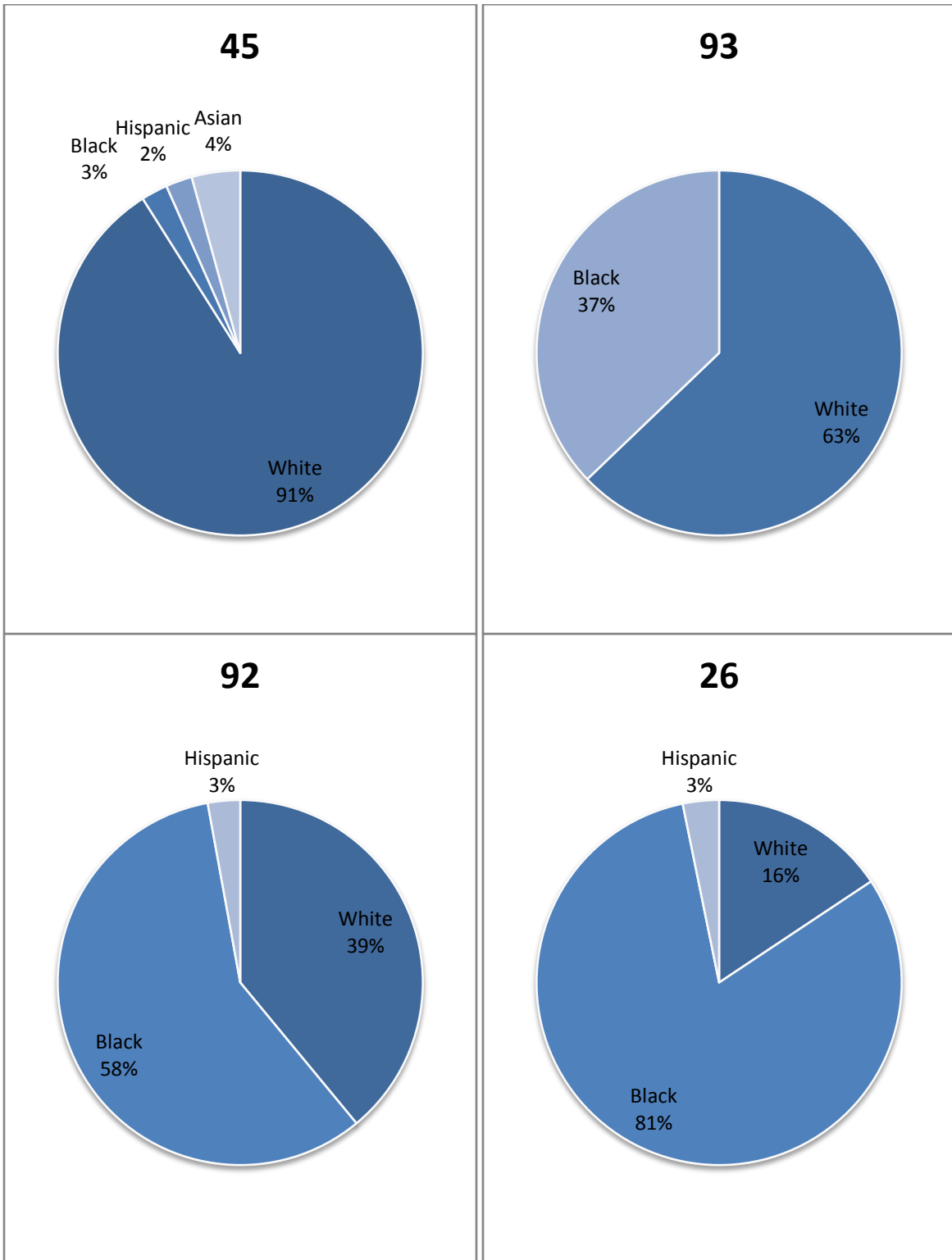
Objective 2

After analysis of demographics in census block groups 45, 92, 93, and 26, there were a few trends discovered.

In our findings, education levels are directly proportional to wealth. The wealthiest area had increasing amounts of people with higher levels of education, while the opposite was true of the three poorest areas.
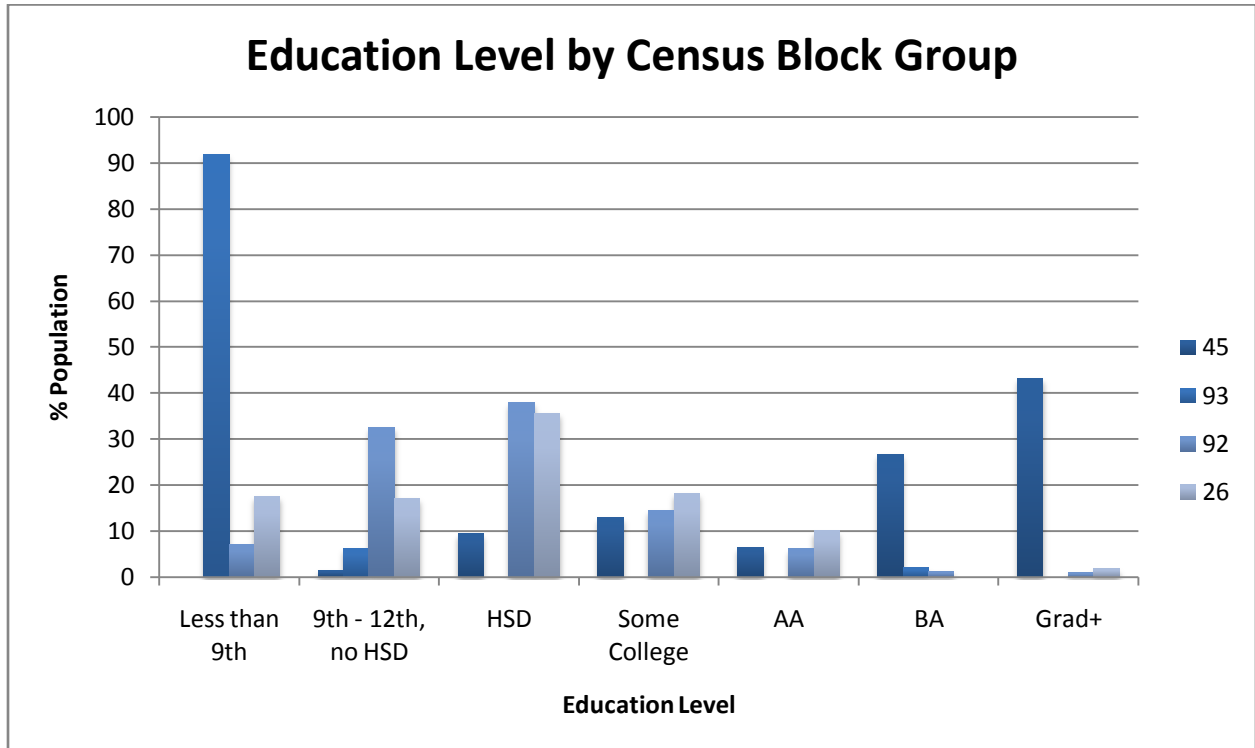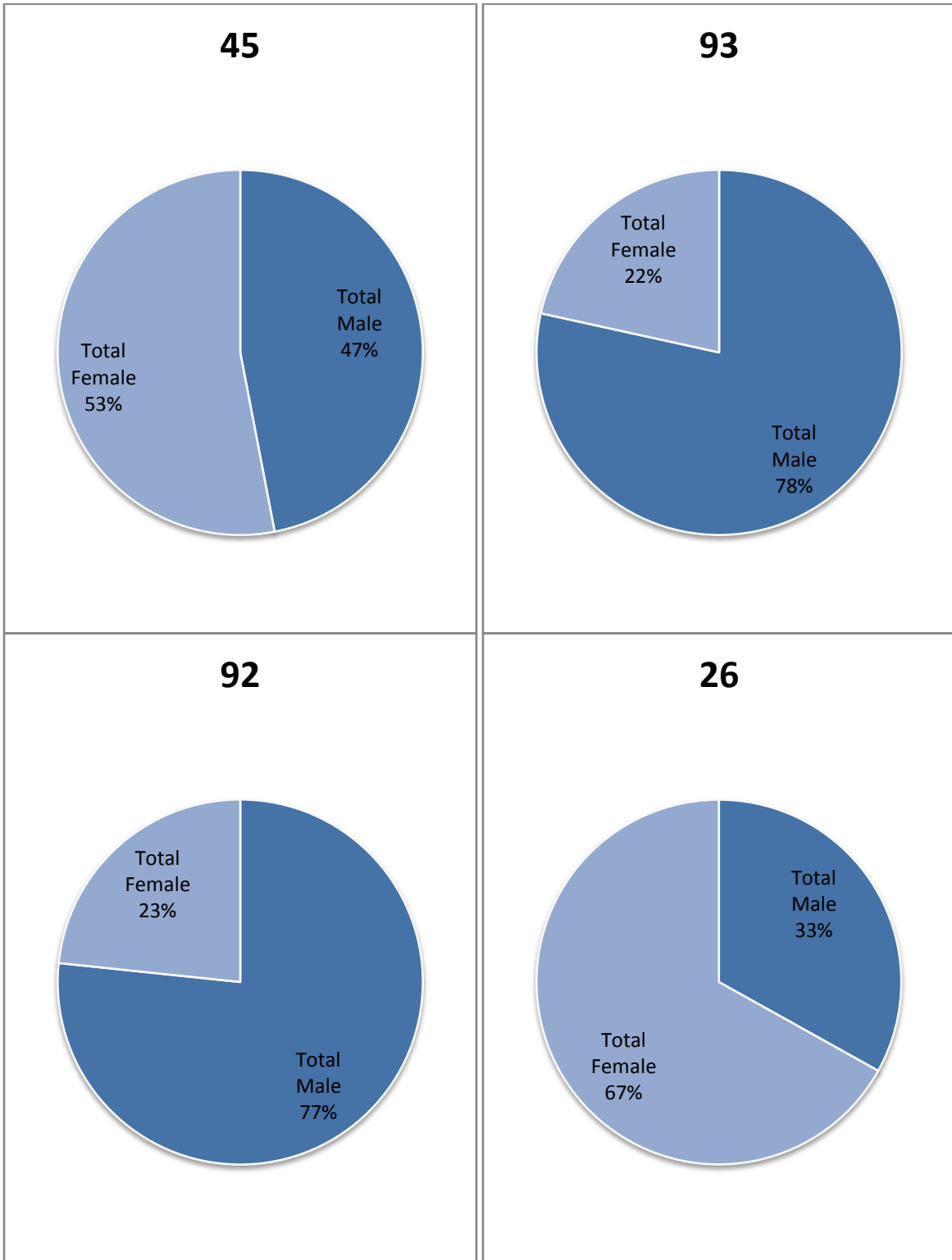
There was also a trend by race. The wealthiest area had whites as the racial group making up the highest percentage of residents, while the percentage of black residents was higher in census block groups 92, 93, and 26.
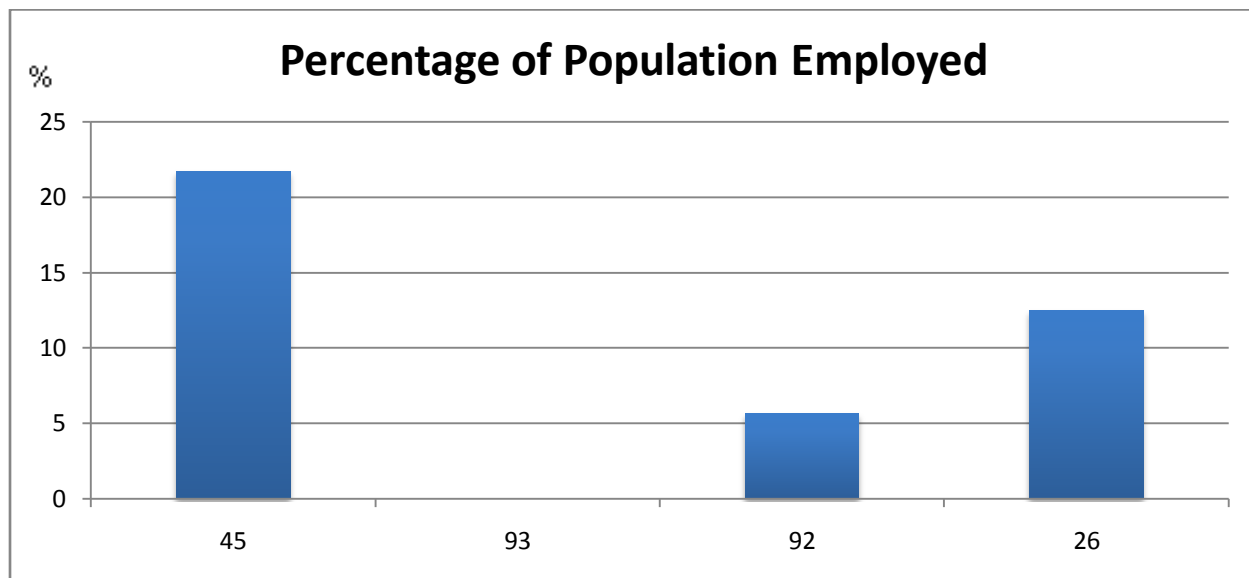
45

Black 3%
Hispanic 2%
Asian 4%
White 91%

93

Black 37%
White 63%

92

Hispanic 3%
White 39%
Black 58%

26

Hispanic 3%
White 16%
Black 81%

However, there were no discernible trends for population of the areas by gender.

45

Total Male 47%
Total Female 53%

93

Total Female 22%
Total Male 78%

92

Total Female 23%
Total Male 77%

26

Total Male 33%
Total Female 67%

In regards to age composition of the areas, the wealthiest area had a very high percentage of residents who were older, which is probably due to the fact that they have better access to health services since they can afford them. In the other areas, the percentage of older residents was less, with the exception of area 93, which reported no children under age 5 and an extremely low number of children between the ages of 5 through 21. This was probably due to flawed data.

45

93

92

26
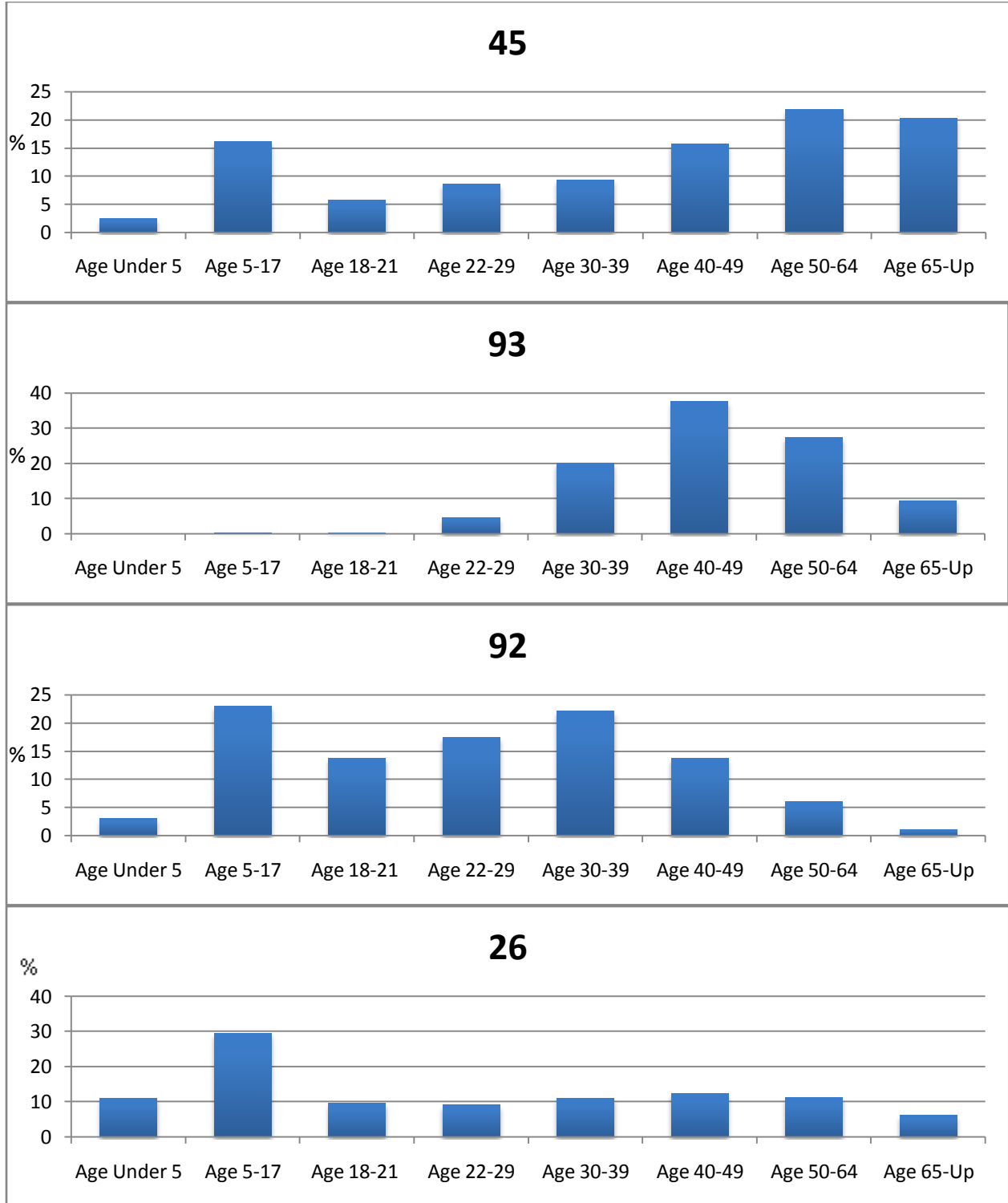
Finally, there were markedly lower rates of families that were employed in the poorest areas. Again, the data for census block group 93 was flawed, resulting in a 0% family employment rate.

Percentage of Population Employed

A bar chart titled "Percentage of Population Employed" with the y-axis labeled "%" ranging from 0 to 25. The x-axis shows census block groups 45, 93, 92, and 26. Block 45 is approximately 21.7%, block 93 is 0%, block 92 is approximately 5.7%, and block 26 is approximately 12.5%.

Objective 3

Census block group 26 has a majority of the populated area living within 0.25 miles of walking distance to a bus stop. For the residents of this area, only a very small fraction has access to assisted food services. The entire area has access to more than one educational center for residents of all ages. The healthcare mile buffer does not expand the entire census block as the educational center buffer does. The healthcare facilities mile buffer stops about three-quarters of the way into the census block. That area, however, is covered by conservation land, so not many residents will be needing healthcare facilities close. Reasonable employment and the religious centers buffer have the entire census block 26 covered for the walking mile radius buffer which allows all those who qualify for reasonable employment to be able to get there by a reliable source.

In census block group 93, more services are within walking distance than were in census block group 26. This makes sense since it is closer to the inner urban core of Gainesville, while the other two census block groups are transitioning from the urban to the rural area. Within each map relating to the different amenities, census block group 93 continuously has the most amenities and services within reach to those residents who may not have the luxury of a vehicle to take them places far. For assisted food services, a vast majority of the residents within census block 93 have access to a food bank, or some kind of food service. However, the 0.25 mile bus stop radius does not reach all residents of this neighborhood; approximately 20% of this census block group is not within 0.25 miles of a bus stop. However, most residents of this neighborhood have access to a school or library within a 1 mile walking distance. This availability helps these residents who may need to use a computer to apply to jobs or gain knowledge. There are quite a few places of reasonable employment within walking distance of this entire census block. Within census block 93, some religious centers are within walking distance for everyone, however, there are not as many religious centers available as there are for other services.

In census block group 92, the residential neighborhoods are on the east and south side of this census block group in this rural part of Gainesville. These neighborhoods have no bus access at all. There is

another part of census block 92 that blends in with census block 93 as part of its neighborhood. Thirteen houses are taken from the neighborhood of census block 93 and grouped with census block 92. The places that have access to a bus are a plot of land with mainly trees and a section that has industrial buildings. Only the small neighborhood shared with census block 93 has access to assisted food services, educational centers, and healthcare facilities. Almost all of the neighborhoods have access to a religious center that is 1 mile in walking distance. The neighborhood that does not have a religious center within a mile walking distance is a mobile home community on the south side of this census block. Due to the proximity of the communities in this area to the Gainesville Regional Airport and the Gainesville Correctional Institution, there are many places of reasonable employment within walking distance that these places offer, yet also many NIMBY (not in my backyard) sites that bring down property values.
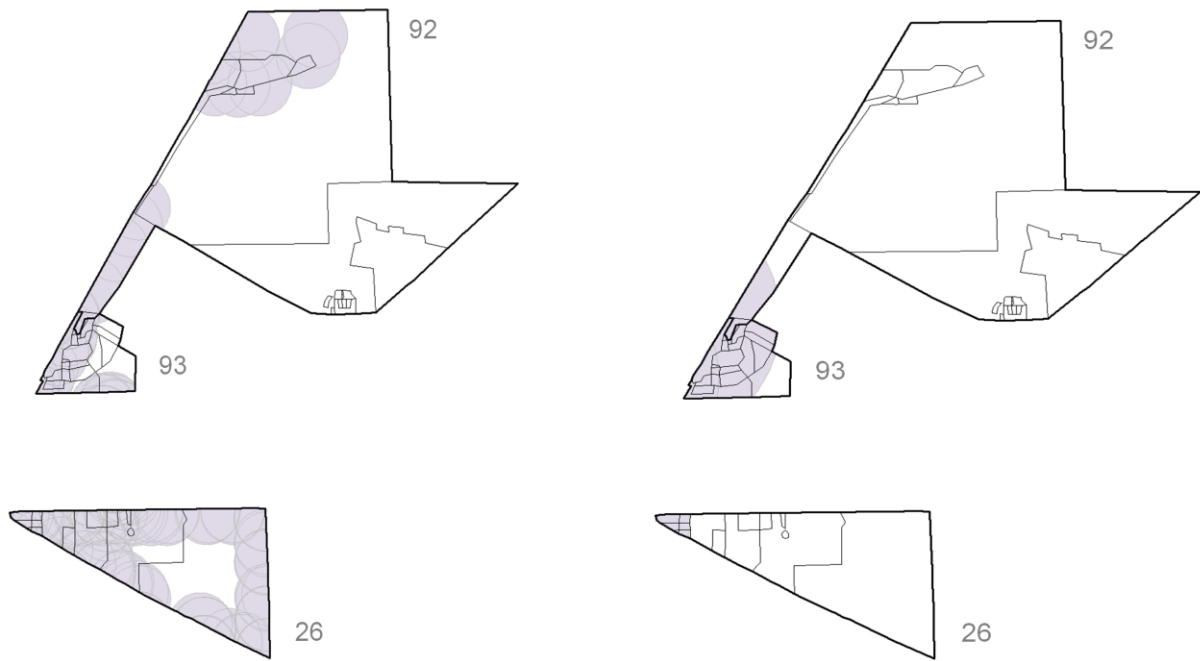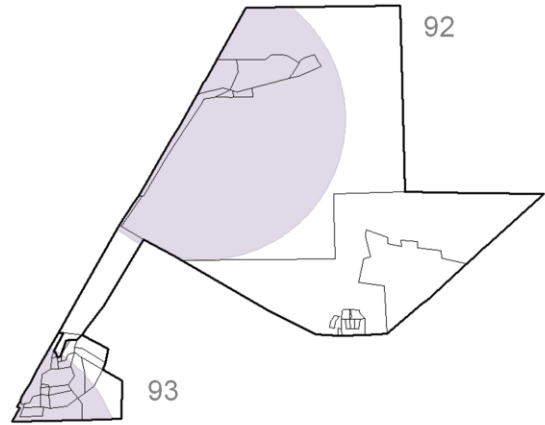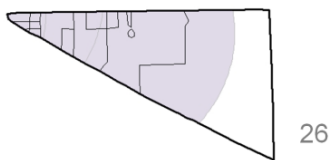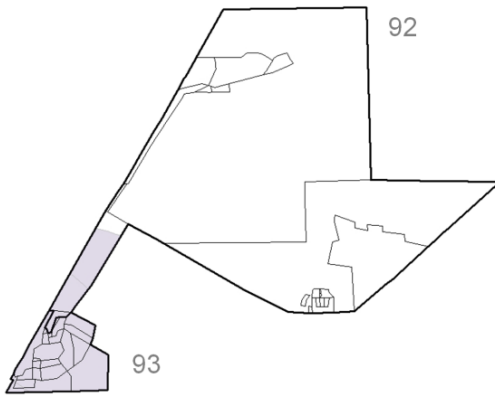

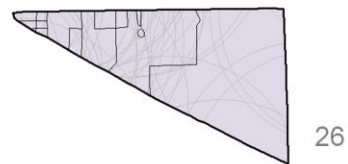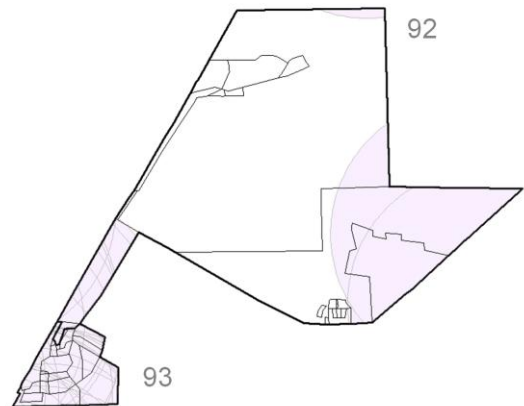Bus Stop Coverage   Assisted Food Services Coverage
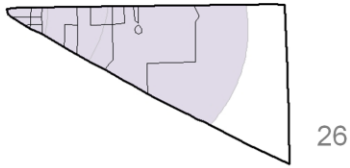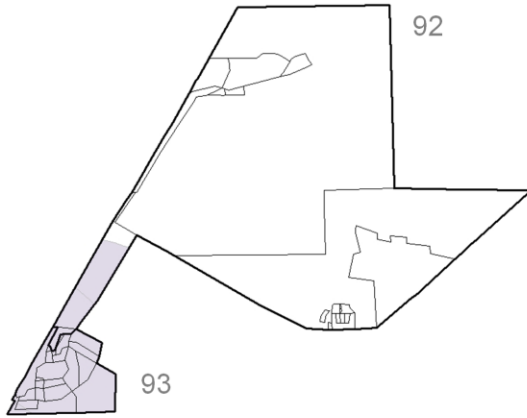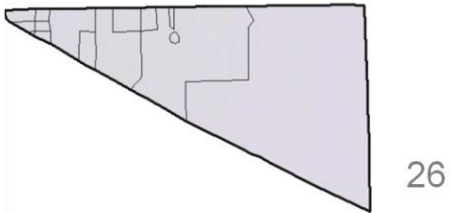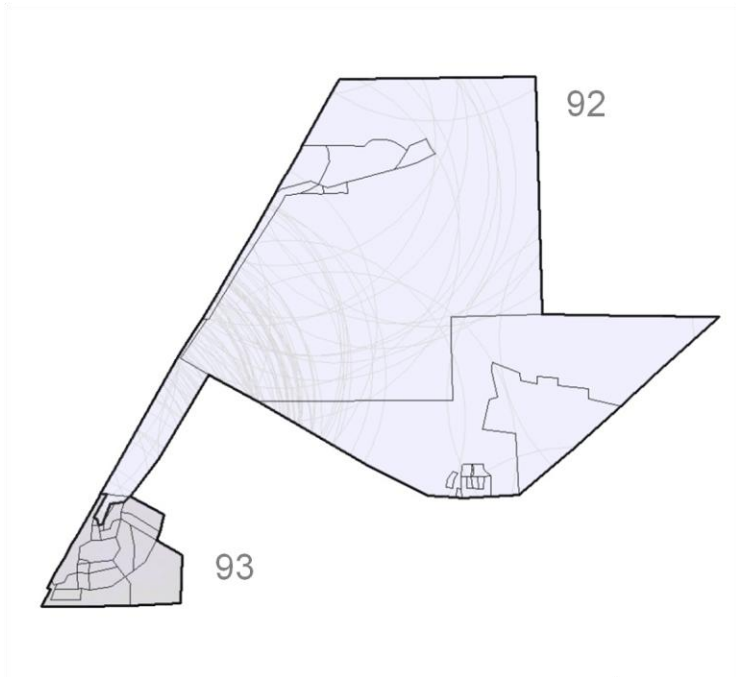
Health Care Coverage

Fire Station Coverage

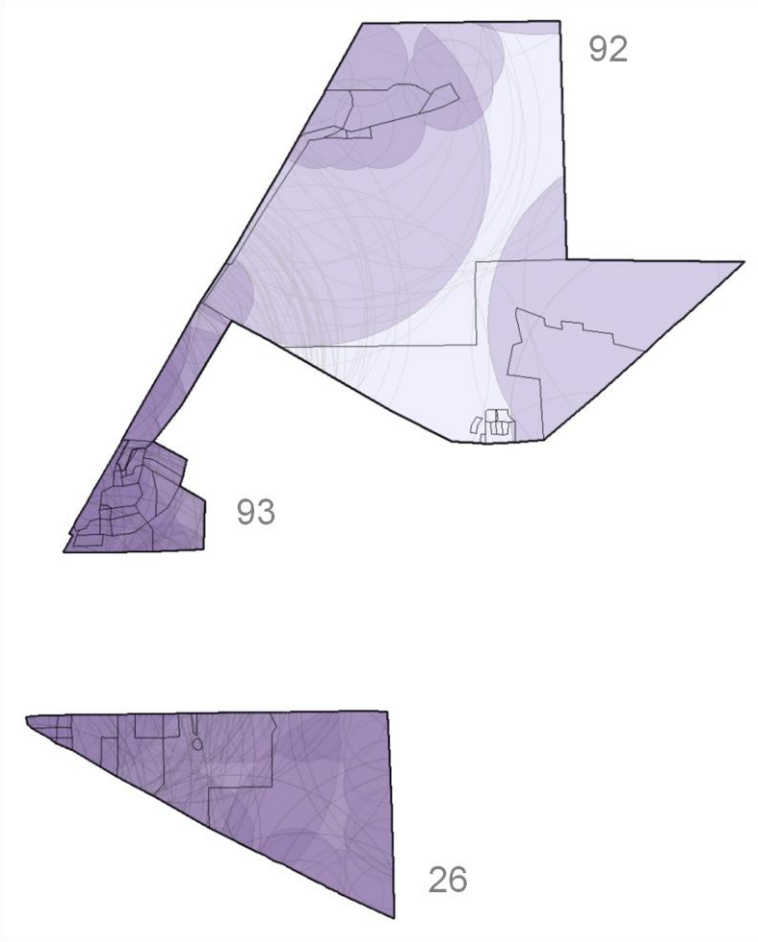

Educational Facilities Coverage

Religious Centers Coverage

13

Reasonable Employment Coverage

Composite Service Access Coverage

Conclusions

Poverty is not only a monetary issue, but it also deals with biological, physiological, safety, belongingness, and love needs. Poverty was determined on the basis of one's income, the proximity of a healthcare facility, employment sites, religious centers, schools, libraries, bus routes, public housing sites and fire stations. Even though these places are impoverished, the residents that live here are still very wealthy compared to the rest of the world that does not have certain services available to them within a mile. When considering poverty throughout the world, one must consider relative poverty of the United States versus the rest of the world. In comparison, the wealth of services and opportunities available in the United States, as seen in Alachua County complicates one's understanding of poverty.

Census block 93 has the majority of its area covered within the 0.25 mile bus buffer. There is a part in the center of the census block where there is no bus access. One recommendation is that a bus route be re-routed through the interior of the census block so those who live in the center of the census block can have access to the bus.

Census block 92 has the least amount of services that are available to the residents in the area. There is not a large enough population of people in that area, so service provision may not be economically justifiable.

Census block 26 has very good coverage of all services except for assisted food services coverage. Only the small tip on the west side of the area falls within 1 mile of an assisted food service facility. A second recommendation be that a government entity or non-profit food bank be established in the middle or east portion of census block 26.

Overall, the three poorest areas had relatively good coverage of services where there was a density of residents to justify provision of services. The only residential areas that did not have access to services were some single-family houses in the central parts of census block group 26 and a mobile home park on the southern side of census block group 92.

References

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