**Muhammed ERENLER - GIS Lab Assignment 1**

**MAP-1- Erie County Education Level (The Number of High School Graduate Householders)**

In the first map, I tried to show the number of households with a high school graduate in Erie County. I defined my own classification in multiple’s of **500**. Why I choose 500, because it is very easy to understand and interpret (and it can divide the highest number (2500) in the data). As we see shaded colors reflect the areas including number of households with a high school graduate (blue is between 0 and 500, green b/w 500-1000, yellow b/w 1000-1500, orange b/w 1500-2000, red b/w 2000-2500). Light green areas are NY state areas other than ERIE COUNTY.

Interestingly out of **25** towns of Erie County; **Alden** is the most educated area (between 200-2500), which is the only **red** one. Then it is better to further investigate why most educated people choose Alden to reside. **Newstead** and **Evans** are the second most educated towns (also there are some small villages around the map) appear as **orange** shaded in the map having between 1500-2000 households with a high school graduate. As we might guess Downtown Buffalo is less educated area in Erie County which appears like green colored. What is also another **interesting point** to me is that most of **the least educated areas** (some small blue areas in the map) are inside **Amherst** and **Clarence**, since as far as I know these two cities are more rich/luxurious areas. Anyway, maybe I don’t know much about here, since it my second year here at Buffalo!

**MAP-2- Erie County Median Age Map Level**

In the second map, I tried to show the median age level in Erie County. I defined my own classification in 0-18; 18-25; 25-30; 30-45; 45-63. Why I choose these arbitrary numbers, because 18 is the juvenile age as far as I know that’s why it is good arbitrary point. 25 is to me a middle level between adolescence and adultery and 35 maturity. To me after 45 a person is old enough to think about retirement (because maybe I am 35!). 63 is not the number I have chosen. When we look at the attribute table we observe that 63 is the biggest median of all ages in Erie County. After defining these arbitrary points now we can interpret the colors. As we see shaded colors reflect the areas with median age population (blue is between 0 and 18, green b/w 18-25, yellow b/w 25-35, orange b/w 35-45, red b/w 45-63. Light green areas are NY state areas other than ERIE COUNTY.

Interestingly out of 25 towns of Erie County; there are **four** towns (**Colden, Aurora, Wales, Elma)** that are **completely red,** which means their median age is **above 45** (Though there are also some red areas but not full red towns but small cities). Then it is better to further investigate why these four towns old-resident towns. Maybe they are more attractive for retired people, or there are more retirement communities, apartments etc. Another thing to mention would be that **Downtown** **Buffalo** relatively consists of more “young people”.

**MAP-3- Erie County Family Density Map**

In the third map, I tried to show the family density levels in Erie County. It means how many family lives in a place per household, since I want to see where the families mostly live in Erie County. I used natural breaks, which is also plausible for me. (.12-.44; .44-.60; .60-73; .73-1). But this time I used four classes, since it makes the map more plain and easy. In addition 5 or more classes do not serve any purpose due to the nature of the data. As we see shaded colors reflect the areas with family density (blue is between .12 and.44, green b/w .44-.60, orange b/w .60-.73, red b/w .73-1. Light green areas are NY state areas other than ERIE COUNTY.

Interestingly out of 25 towns of Erie County; there are again four towns (**Alden, Sardinia, Marilla, Colden)** that are **completely red,** which means their more than 73% of all household are consisted of families. Additionally, as we can also notice **Clarence** and **Lancaster** are two **almost red** towns, which means families prefer these places as well. Then it is better to further investigate why these towns are preferred by families. Not surprisingly, **Downtown** **Buffalo and Amherst** relatively consist **fewer** number of families when you compare their number to all households in those regions. One of the reasons might be of course that the UB’s both campuses are located there, which means more **bachelors** and **student** households live there.

**MAP-4- Erie County Foreign Origin Householder Map**

In the fourth map, I tried to show the number of households whose householders are coming from foreign origin. This time, I want to see where the families from foreign origins prefer to live in Erie County. I used three classes this time, since the data shows that way. When we look at the data there is no need to select more classes. As we see shaded colors reflect the areas with foreign origin householder numbers (blue is between 0 and 250 yellow b/w 250-500, red b/w 500 and 1678 (which is the highest number in the attribute tables). I choose 250 and 500 arbitrarily since I assume that if there are 250 foreign origin household, it means there is fair amount of foreign residence in that area. And if this number is more than 500, I assume that this place is such a full of foreign origin people. Light green areas are NY state areas other than ERIE COUNTY.

Obviously **Aurora, Grand Island, Downtown Buffalo, Amherst** (especially here!!) and **Clarence** are the towns the households from foreign origin prefer. This is probably due to the fact that those places are **so close** to **business** and **university** campus **areas** and as we know there are many people of foreign origin who simply migrated here for business and/or education purposes. As we immediately notice from the map, especially **the southern** part of the **Erie County** do not contain much foreign origin householders, probably because the southern Erie is more **rural** and **closed**-**community** locations.