# Alcohol Anonymous Meeting Analysis:
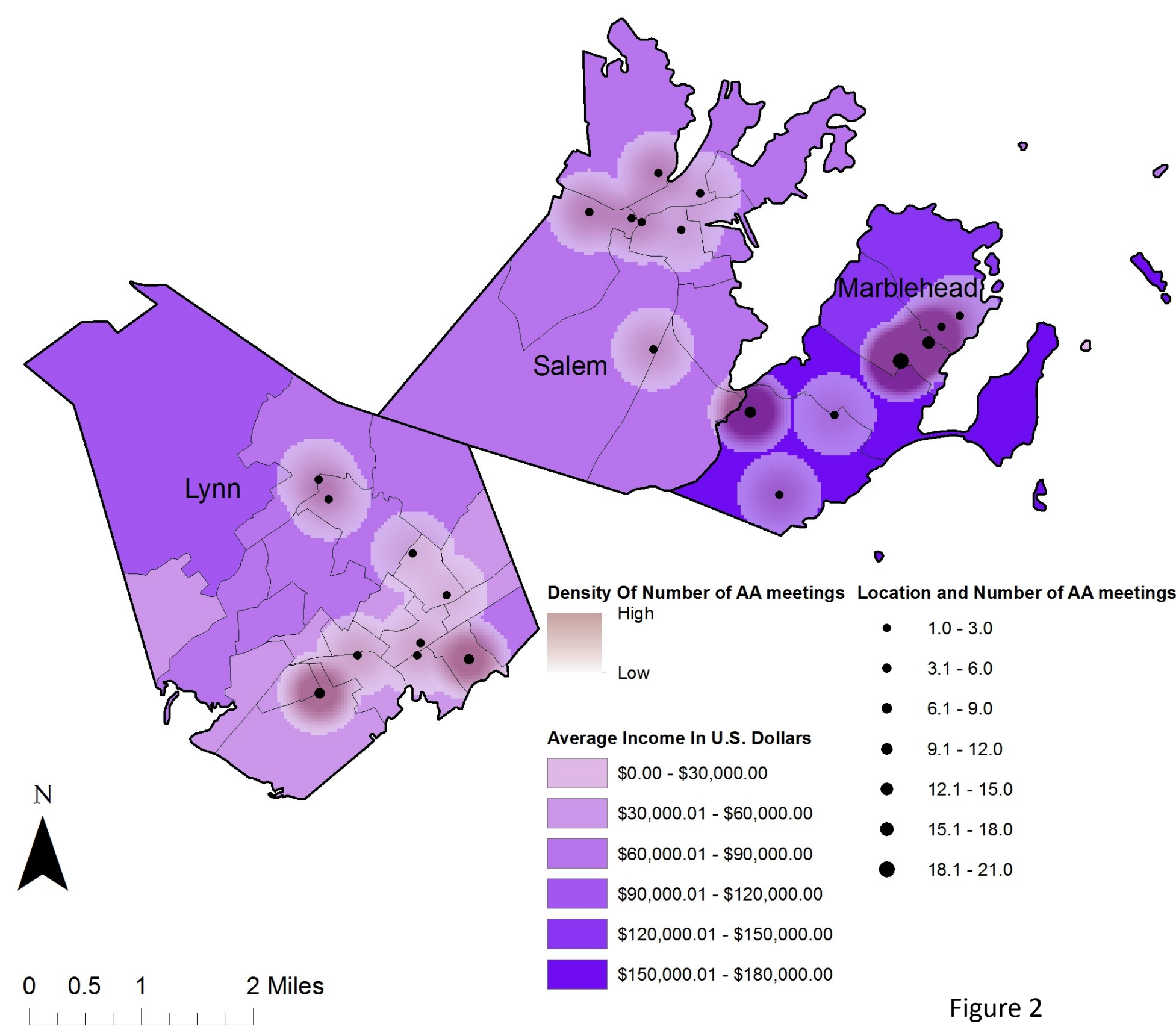# Marblehead, Salem, and Lynn, Massachusetts

Introduction

As in many communities, a major form of socializing in the town of Marblehead revolves around alcohol. On any given day, at any time, one will likely see a familiar face standing outside one of the "townie" bars. Anyone who lives in or visits Marblehead would agree it is a beautiful, safe, and wealthy town, with a great school system, but the amount of drinking seems to be higher than the average town. What could contribute to the high amount of alcohol consumption? Is it higher than other communities? Or is it just more obvious in a small town? To attempt to answer these questions, it is important to look at multiple towns with varying demographics in relation to alcohol consumption. Unfortunately, the rates of alcoholism for each town could not be found, so instead, Alcoholic Anonymous meetings were used.
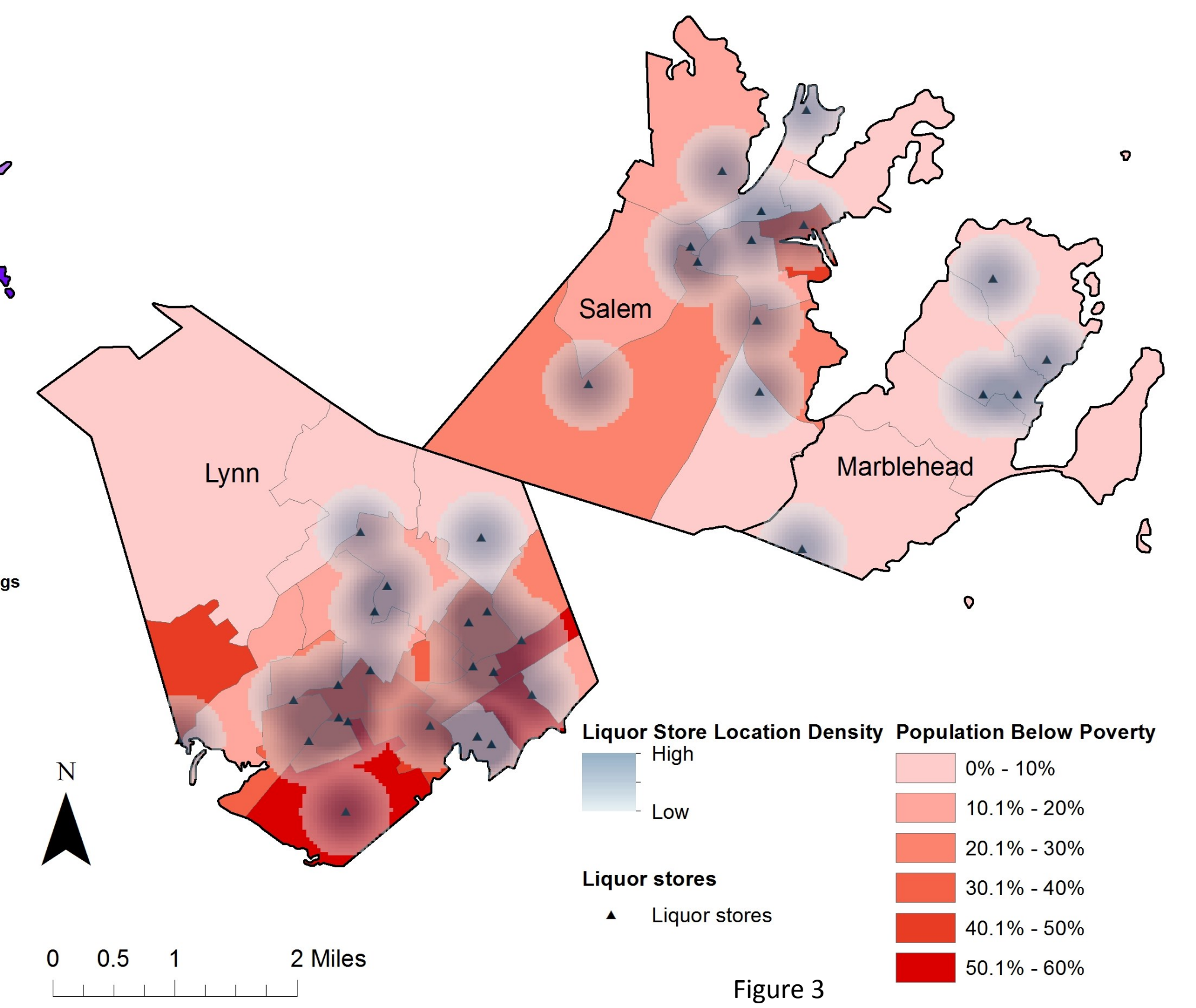
Education and AA meeting Density Analysis

Figure 1
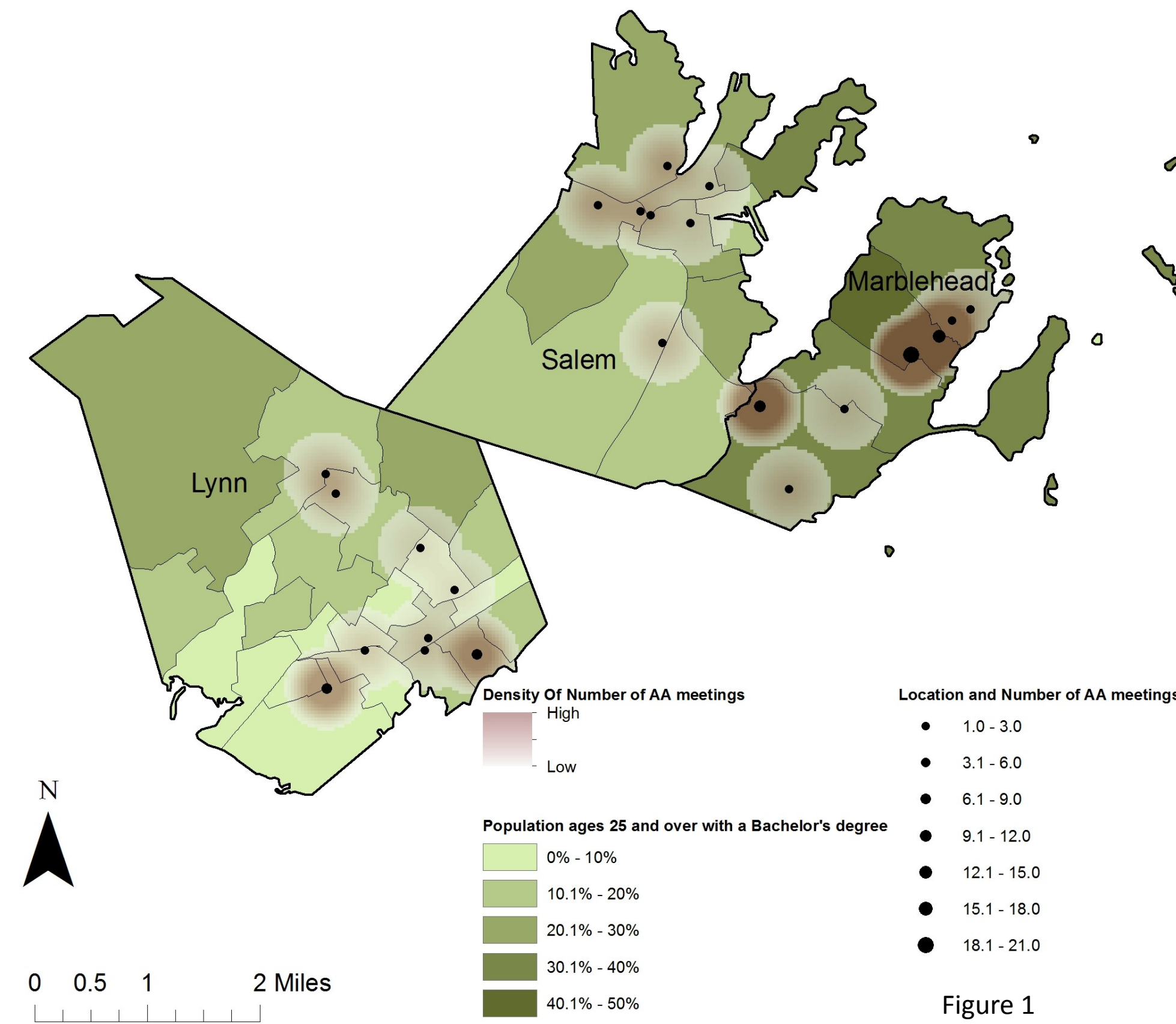
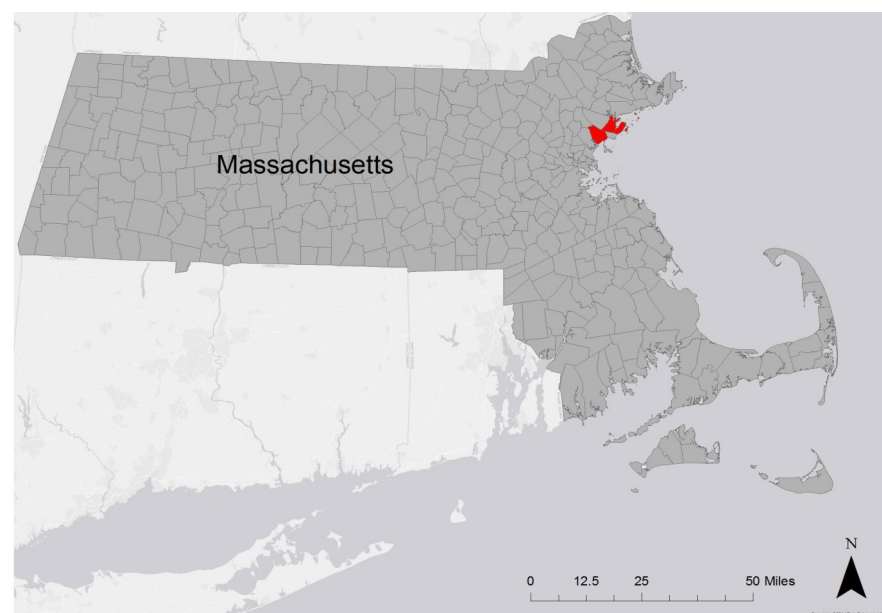## Income and AA meeting Density Analysis

Figure 2

Poverty And Liquor Store Density Analysis

Figure 3

Methods

To analyze what characteristics may relate to AA meetings, data was collected from three different towns of Massachusetts: Marblehead, Salem, and

Lynn. For each of these towns, the location and number of AA meetings per *week*, the location of liquor stores, and the census data of income, education, poverty, and population were collected. Then, comparisons were made between number of AA meetings, liquor stores, and the census data collected. After determining which relationships seemed the most significant, further data analysis was done. The number of AA meetings per week were compared to education and income as seen in figures 1 and 2. And the relationship between liquor stores and poverty is shown in figure 3.

Observations

The number of AA meetings seem to have a large relationship with the income and education of an area. The higher rate of college education, the higher the number of AA meetings (figure 1); the higher the income, the higher the number of AA meetings (figure 2). It also appears liquor stores are either located in or near populations with higher percentages of poverty (figure 3). There does not seem to be a consistent relationship between population and AA meetings or liquor stores, but quite surprisingly, the town with the lowest total population has the highest number of AA meetings (figure 4). Additionally, the proximity of AA meetings to liquor stores is ironically close.

Town	Population	Meetings per Week	Population per meeting
Marblehead	19,808	53	374
Salem	42,219	13	3,247
Lynn	90,329	25	3,613

Figure 4

Conclusions

Final conclusions depend on what the presence of AA meetings mean. Do high numbers of AA meetings mean high number of alcoholics? If so, higher education could result in a higher income that leads to high rates of drinking. More money can be spent on alcohol, and if one has a high paying regular job, it is possible more time can be spent drinking. Or, do high numbers of AA meetings mean a high awareness of the negative effects of alcoholism and a greater concern to help alcoholics? If this is the case, it is possible more educated people realize the effects of alcoholism and raise the importance of giving and receiving help. Additionally, a consistent and lucrative income could allow more free time for alcoholics to attend AA meetings. AA meetings could signify an area with a high alcoholic problem, an area that stresses the dangers of alcoholism, or a combination of both. Lastly, the relationship between poverty and liquor stores, as well as the lack of AA meetings in these areas could be interpreted in a few ways. The high number of liquor stores must mean these areas provide successful liquor store businesses. Therefore, liquor stores could reflect high rates of drinking, and the lack of AA meetings in that area could reflect the lack of a high income that could allow extra time dedicated to AA meetings. Notice the higher rates of poverty in lower educated areas. The lack of education would not only result in low income, but could lead to high drinking and low AA meeting rates, due to the lack of knowledge and, therefore, concern of the negative effects of alcohol.

Limitations and Further Research

The biggest limitation with this data analysis is the lack of alcoholic statistics. There are generalized statistics for the U.S. and other countries, but when narrowing down to this small of a scale, accurate data gets lost. If numbers and locations of alcoholics could be documented, then many of these questions could be answered. Until then, the answers to these questions are left to individual interpretation of the meaning of AA meetings.

Percent of Population ages 25 and over with a bachelor's degree

Average Income In U.S. Dollars

Percentage of Population at or Below Poverty Line

Population

Creator: Rebecca Betters
Instructors: Carl Zimmerman, Carolyn Talmadge
Projection: NAD_1983_StatePlane_Massachusetts_Mainland_FIPS_2001
Date: May 1, 2014
Sources: Census.gov , Mass GIS, Intherooms.com
Scale: 1:62,500