

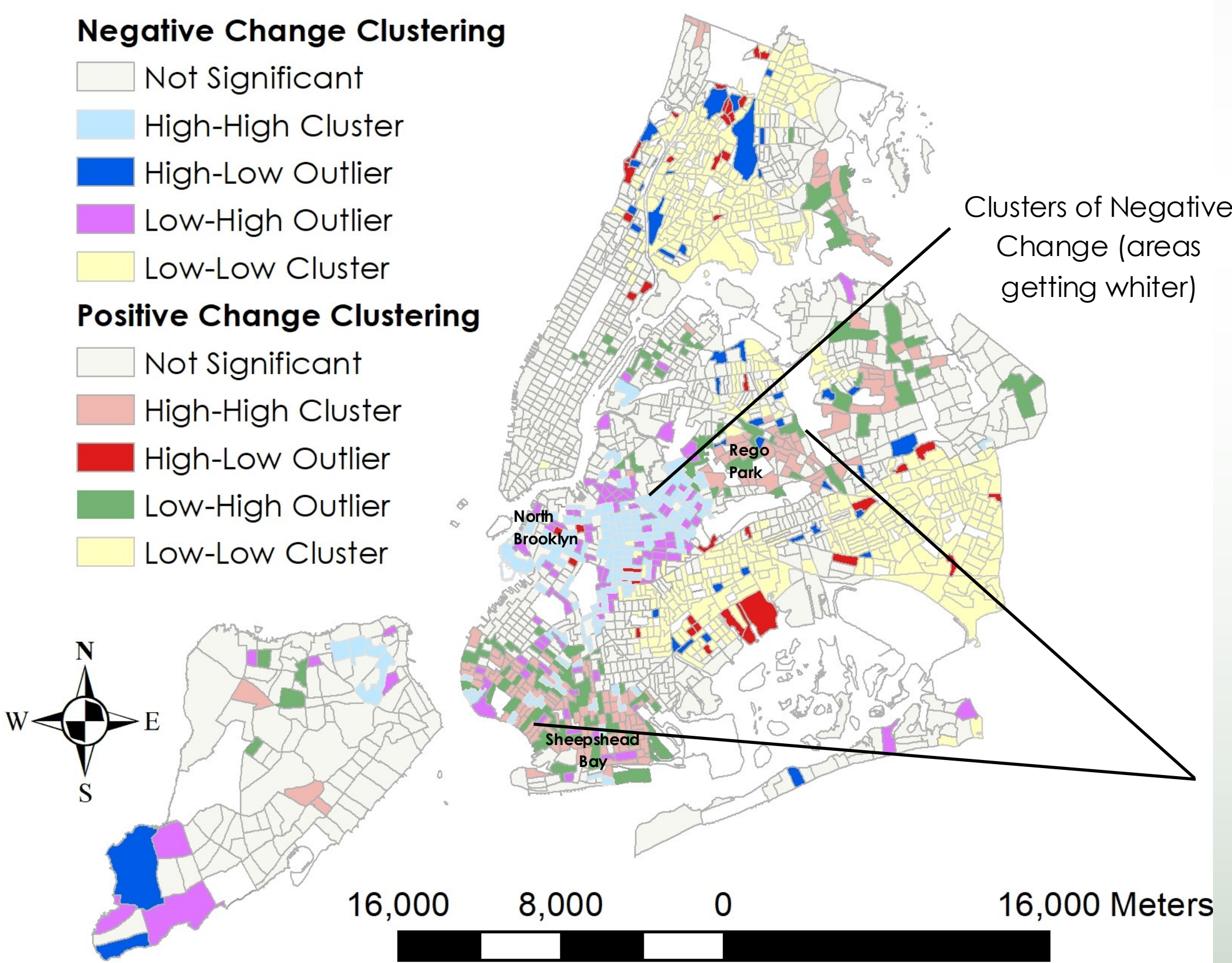
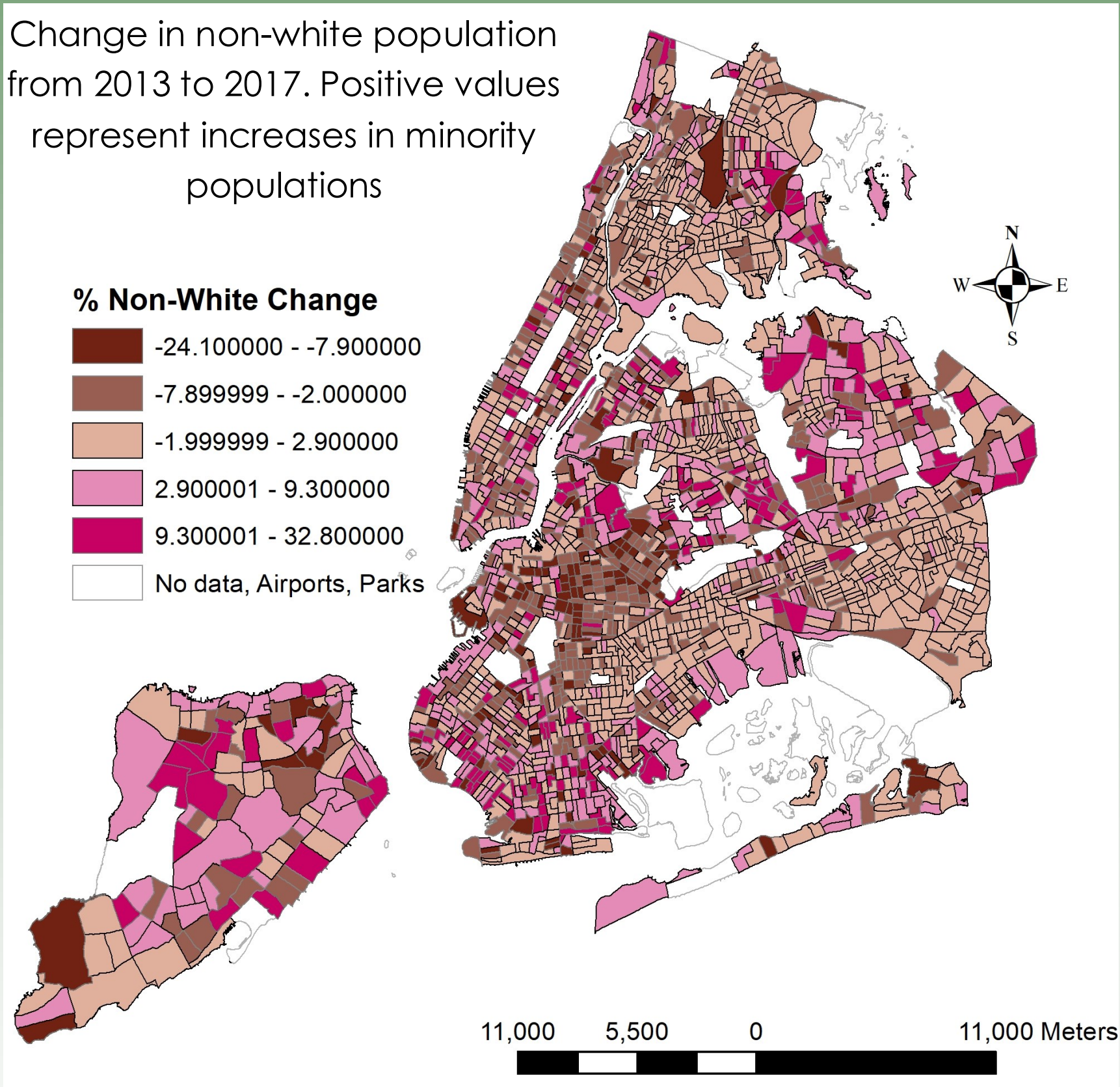
An Issue of Space or Race? Minority Clustering in NYC 2013-2017

Introduction

New York City is the largest city in the United States and the population is only growing. However, the high demand and limited space has caused affordability to be a major issue. Additionally, redlining and other racist policies of the 19th and 20th century determine many of the historically segregated neighborhoods and the resulting socioeconomic barriers cause this segregation to continue. However, the growing population and wealth has caused many of these areas deemed undesirable to gentrify, displacing often predominantly low income and minority residents. This poster aims to answer, **how did minority clustering in NYC change in between 2013-2017?**

Results and Conclusions

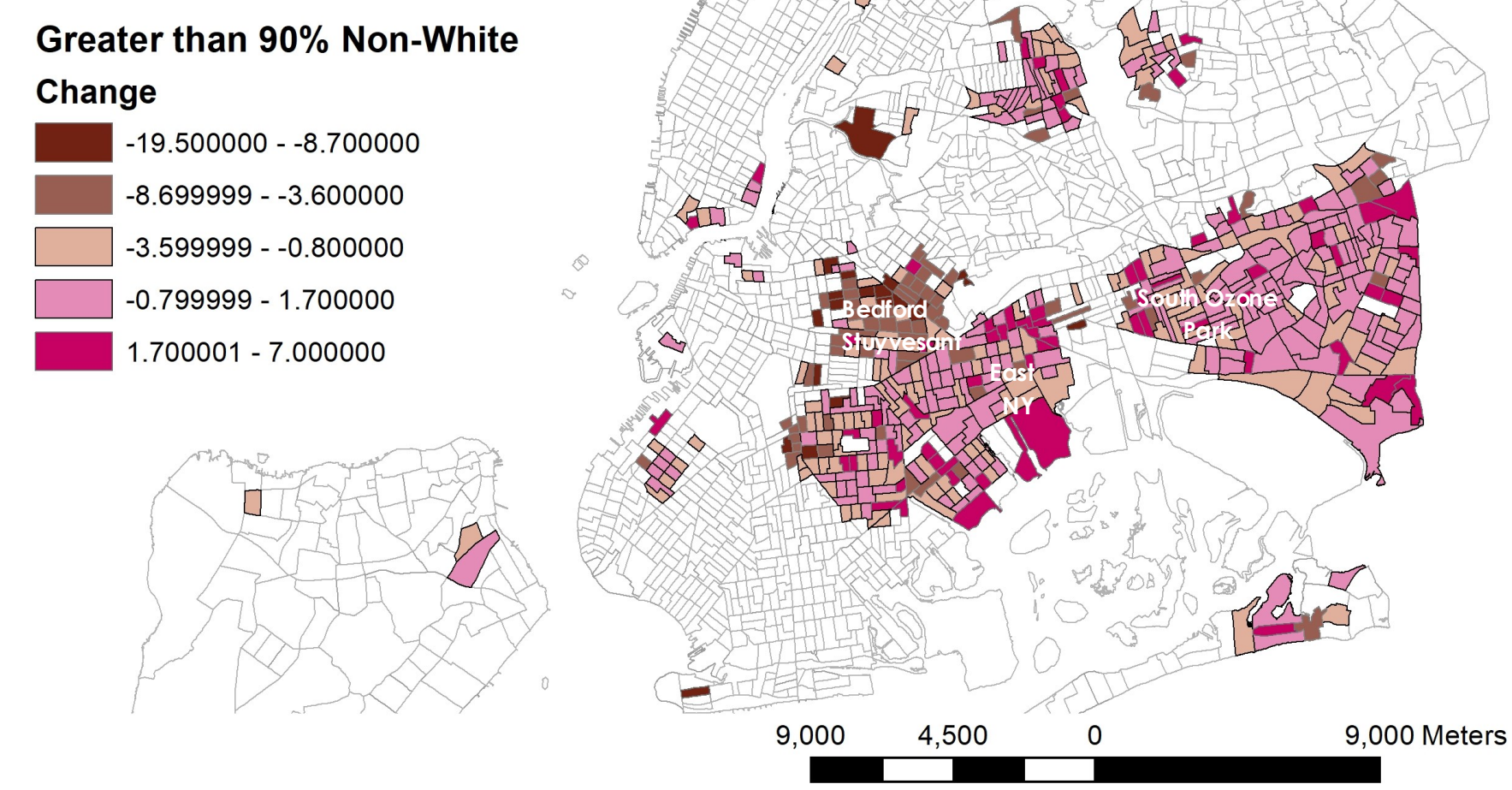
This poster demonstrates clear clustering of minority populations in NYC. As demonstrated in the yearly maps, areas with high segregation of both white and non-white populations are clustered together and this appears consistent over the 5-year period. Additionally, the Local Moran's I analysis depicts that clustering exists in areas experiencing demographic changes. Census tracts demonstrate change in clustered groups. Furthermore, this spatial analysis shows a clear trend of Socio Spatial Polarization. Areas known to be exhibiting extreme gentrification such as North Brooklyn are rapidly becoming whiter. However, presumably less desirable areas, based on urban resources and proximity to Manhattan, have increasing populations of color. For example, the coastal regions of Brooklyn like Sheepshead Bay (approximately 1 hour commute to lower Manhattan), or the middle section of Queens including Rego Park (1 hour) are gaining minority groups, likely because of displacement from the gentrifying areas. The analysis of the most segregated areas demonstrates both the clustering of these populations and the lack of desirability of these areas. Areas such as the South Bronx, South Ozone, Queens and East NY Brooklyn which historically have both high low income and minority populations, exhibited, generally, positive change, highlighting increases in segregation in the areas of NYC that are already the most segregated. Additionally, all of these areas lack accessibility to Manhattan with approximate commute times 45 minutes, 1 hour and 20 minutes and 1 hour and 20 minutes respectively. Obviously, a few outliers can be found such as the area between Bushwick, Brooklyn and Bedford Stuyvesant, Brooklyn (40 minutes). However, out of these highly segregated areas, those exhibiting increasing white populations are closest to Manhattan and the already gentrified areas of Brooklyn, such as North Brooklyn (20 minutes), presenting consistency with the earlier argument that minority populations are being pushed further out in outer boroughs.



Methodology

For the purposes of this analysis, populations are determined by two groups: Non-minority, or White (not Hispanic or Latino) and Minority, or Non-White (anyone that self-identifies on the census as either Non-White or Hispanic/ Latino, or both). The maps completed involve data from the ACS on the census website. Data involving white and non-white percentages by census tract were joined to a census tract of shapefiles. Shapefiles of green spaces and airports were added, along with locations with no data found using a select by attribute. The series of five maps from years 2013-2017 each represent the minority populations in each census tract for the specified years. The scale is broken down to represent the highly segregated areas (tracts with less than 10% minority or non-white populations), the average percentage of non-white people in America (38.7%) and the average percentage of non-white people in NYC (64.9%). Following this, if NYC achieved perfect integration, all tracts would fit into the 38.7-64.9% non-white range. The map demonstrating change in each census tract was constructed by simply 2013 non-white population from that of 2017. Negative change demonstrates white populations increasing in tracts and positive change represents areas where minority populations are increasing. The map demonstrating clustering depicts a Local Moran's Spatial Analysis, examining areas with clustering of both negative and positive change (created using the absolute values). The maps are overlaid to demonstrate both results. Finally, the map demonstrating change in the most segregated areas was created using a select by attribute for areas with more than 90% non-white populations in 2013 and analyzing the change for just these tracts.

Changes in the non-white areas for the most segregated census tracts



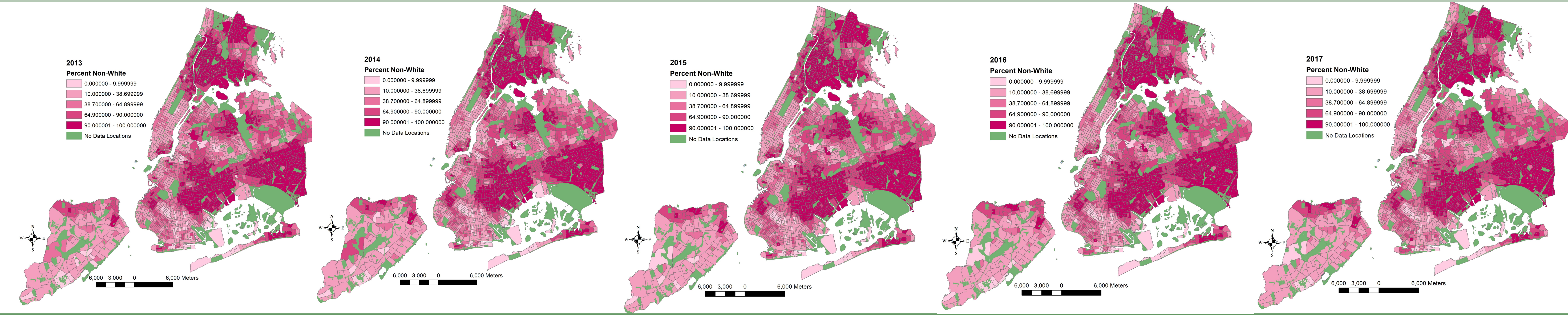
2013

2014

2015

2016

2017



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Intro to GIS Fall 2019

Projection:

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Lambert Conformal Conic

Data Sources: Census ACS Survey (2013-2017) and City of New York (2017)