# The Gradual Disappearance of an Affordable Life:
## A Risk Assessment on Gentrification in New York City

## Introduction

Gentrification is defined as the buying and renovation of houses and stores in deteriorated urban neighborhoods by upper- or middle-income families or individuals, raising property values but often displacing low-income families and small businesses. Besides the displacement of low-income families and small businesses catered to the areas, signs of gentrification include the exodus of minority racial groups, the appearance of high end retail and restaurant locations, and finally, a shift in social standards for the affected area. As mentioned in the definition above, Gentrification usually occurs in lower income urban areas, where property value is cheapest for those who come from upper/middle class households. In a sort of chain reaction, the property value rises, pushing the people who relied on a lower rent/cost of living out of their neighborhood.

In 2016 NYU's Furman Center conducted a study that used 1990's census data as well as 2010 American Community Survey (ACS) data to compare the effects of gentrification in the community districts of New York City's five boroughs. Because the effects of gentrification are primarily money driven, this project analyzes three factors that can contribute greatly to the gentrification of an area, (Median Rent, Median Income, and Change in People of Color (POC) populations) and will seek to develop a risk assessment of the community districts in NYC and scale them based on whether they have little/no risk of gentrification, to places that are already being gentrified.

In order to create a gentrification risk map, it is necessary to compare the community districts of NYC, but in two different periods of time. To do this, the project pulls widespread socioeconomic and demographic data from both the 1999-2000 Census, as well as the 2010-2014 ACS data. For the study, various excel files of the necessary information were downloaded from the NYC.gov website, and converted to be readable by the ArcMap software. Because inflation naturally would affect any economically related factors, the full analysis was done in terms of percent change from 1999-2000 to 2014. Using percent change as the telling variable allows the maps to actually present the fastest changing, and therefore gentrifying neighborhoods. By providing the maps of the three factors, and assigning a risk based on the range of the percentage, a final all-encompassing map can be created.

## Methods

The final map provides the full extent of gentrification within the New York City area. The community districts with a lower extent of gentrification risk (More yellow) are historically more affluent neighborhoods that have only solidified their standings as expensive places to live. On the other hand, places within the higher extent of gentrification risk (More Brown) vary from completely gentrified neighborhoods like Greenpoint and Williamsbridge, to places on their way towards gentrification, such as the Mott Haven and Hunts Point neighborhoods in the Bronx. Over the 14 years that were analyzed, the Greenpoint and Williamsbridge areas of Brooklyn have shown the greatest increase in median income, the greatest increase in median rent, and the largest displacement of POC populations in all of the New York City area. In Williamsbridge, the median income increased 99.2%, almost double the area's income in 2000. In the same community district, the average price of rent has gone up 128.6%, and there has been a 12% reduction in the POC populations.
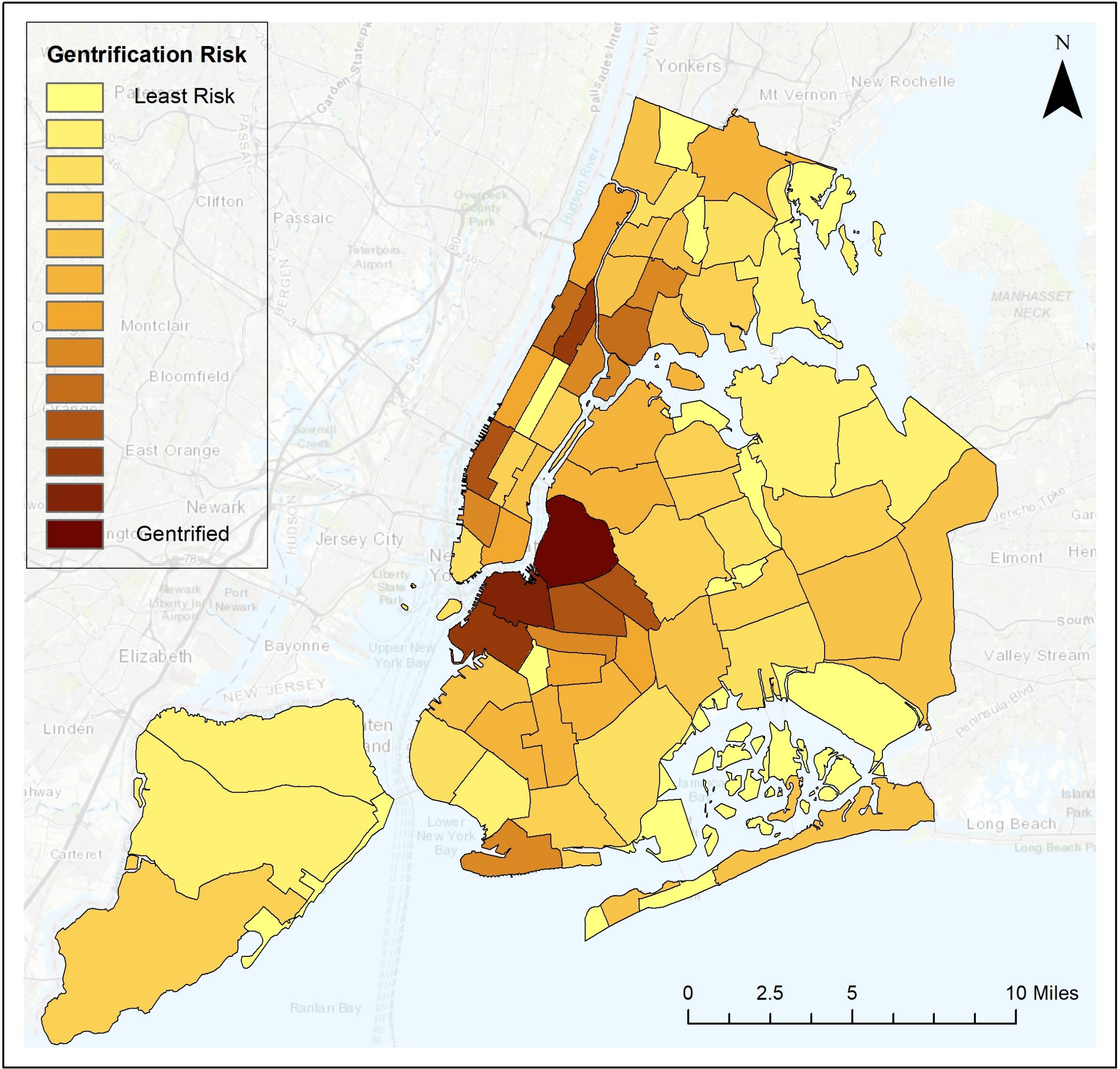


## Results

Gentrification has been a polarizing process due to the major differences in the people it can effect. Generally, people who are less than 10 years removed from graduating from college see gentrification as an opportunity to live in a place that is relatively cheap considering the cost of living in Manhattan, while staying close enough to be able to travel in and around the five boroughs in a timely manner. Conversely, the neighborhoods with more affordable rent exist because they are the poorest locations within the city, and coincidentally the places with the most people of color. As younger, career workers move into these places, they essentially raise the price of living in the area, and push already established working families to find the next cheapest place to live.
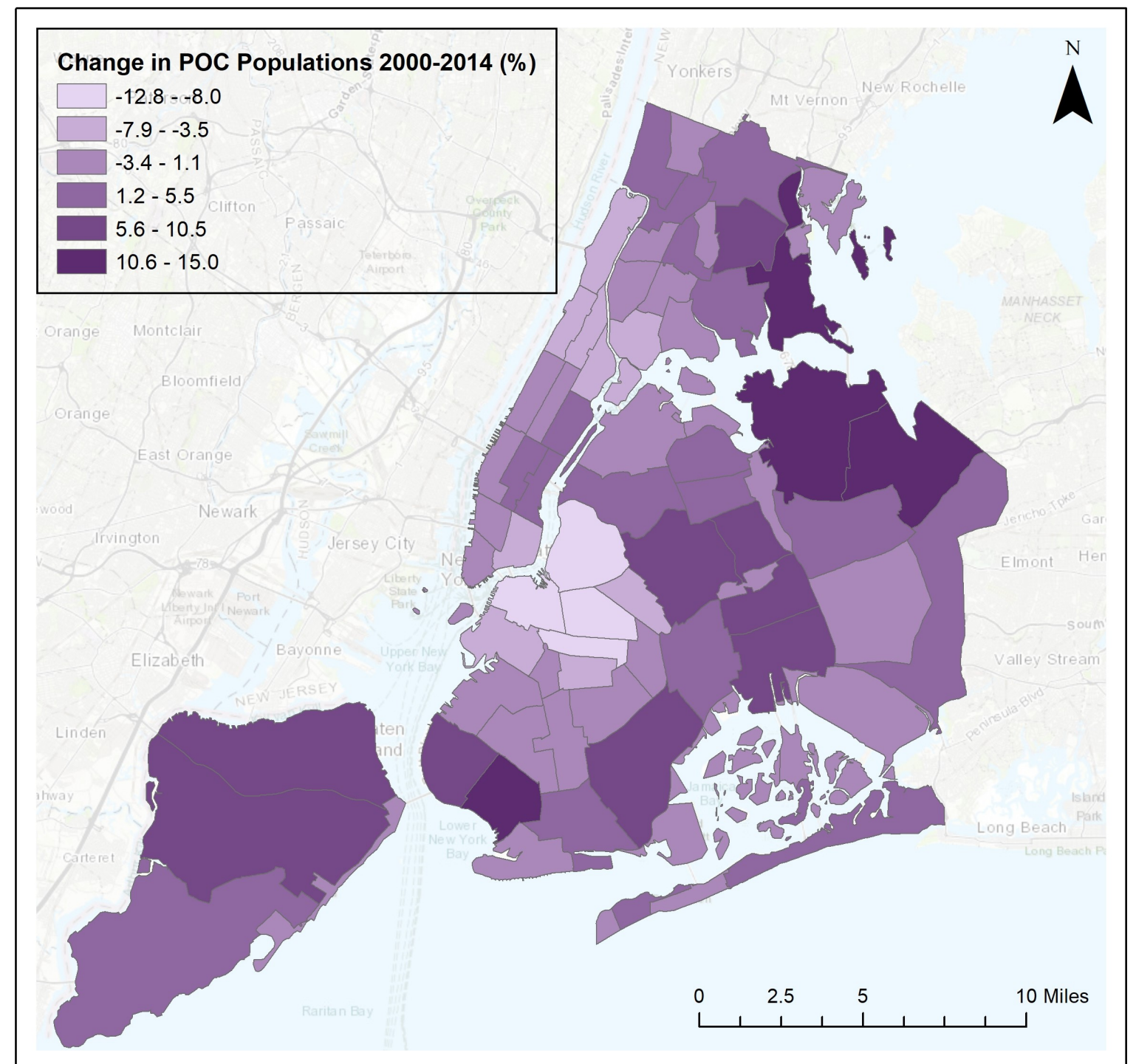
## Limitations

Although the data provided can be telling, there are a few limitations in place that deserve further exploration. For one, the American Community Survey is a survey and not a government census. As a result, every value within the survey has a margin of error attached to it. As a result, the median value of the calculated numbers was used. Also, the ACS data was compiled over a four year span, from 2010-2014, creating further possible discrepancy. Also, the final risk map was created by assigning arbitrary weights to each analyzed factor, when these factors can actually have different implications/effects on a place. Finally, two of the three factors have to do with money, whereas more analysis into factors such as the average age of an area can be done to create a more encompassing gentrification map.

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Sources: NYC Department of City Planning
Projection: Lambert Conformal Conic

### Change In Median income 2000-2014
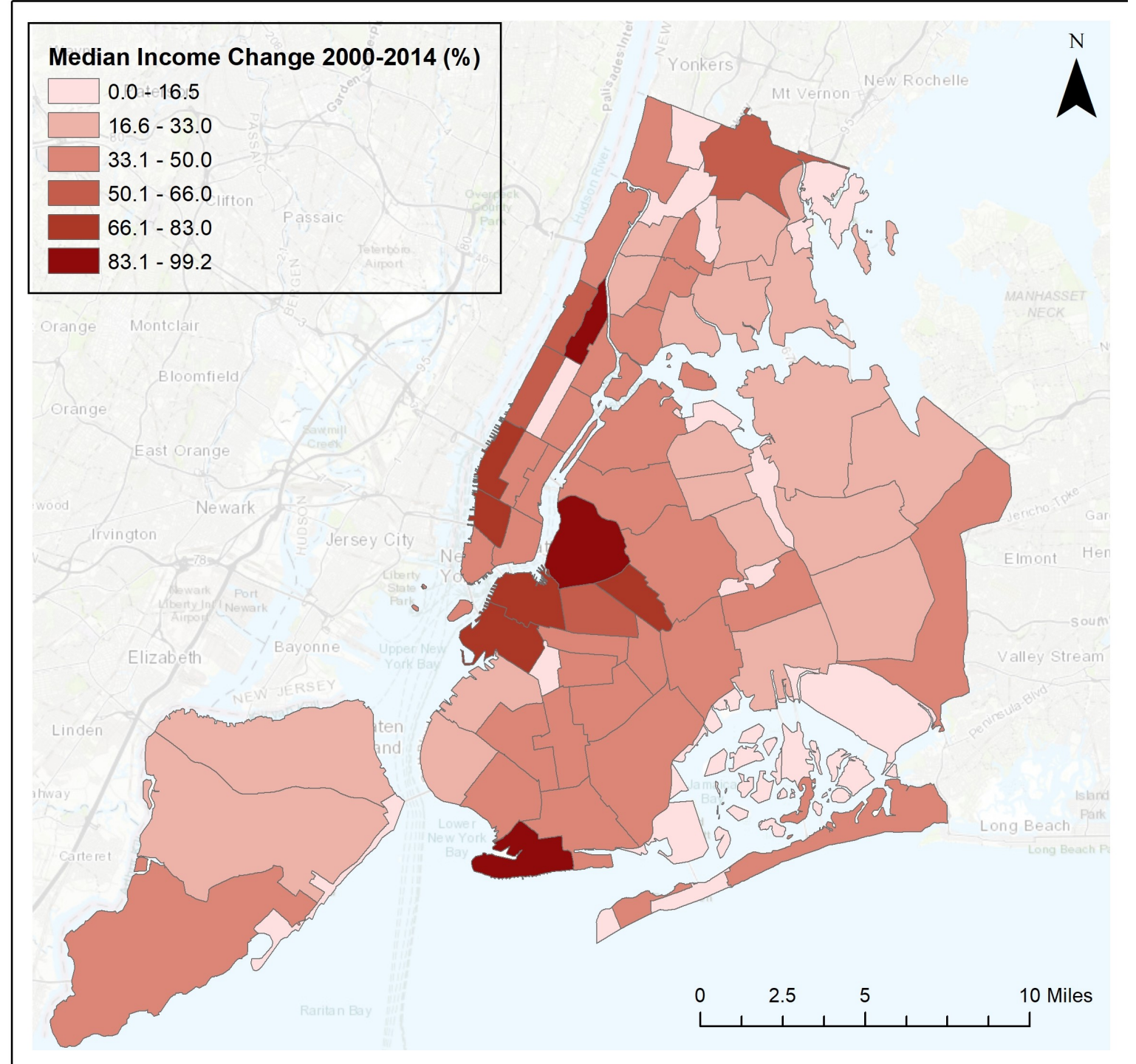


### Change In POC populations 2000-2014



### Change In Median Rent 2000-2014