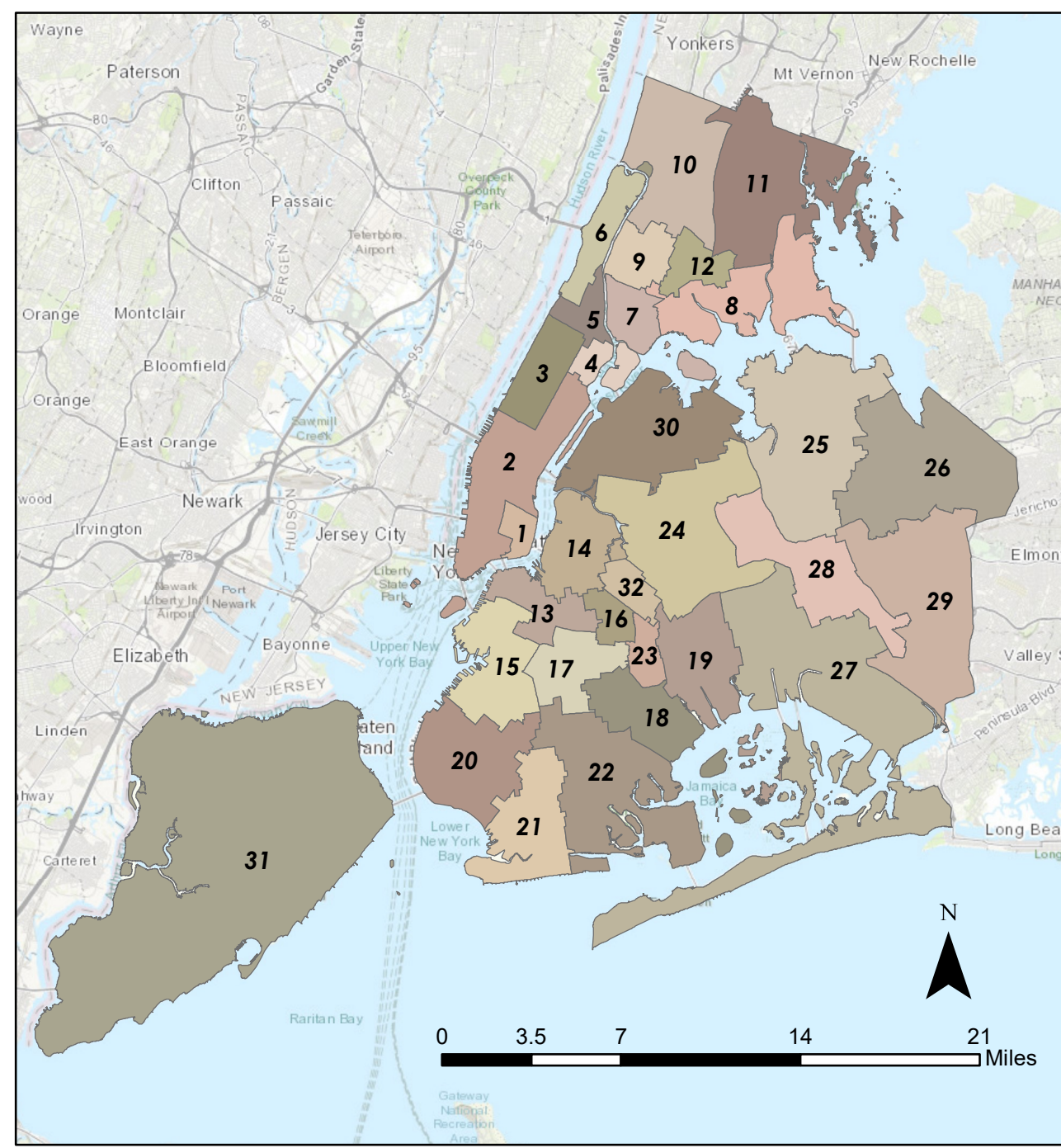




# THE GREAT (UN)EQUALIZER

Disparities In The New York City Public School System

## BACKGROUND



New York City is home to the largest public school system in the United States. It is divided into 32 community school districts that serves over 1 million students. Children are usually assigned to a school in a certain zone based on their home address.

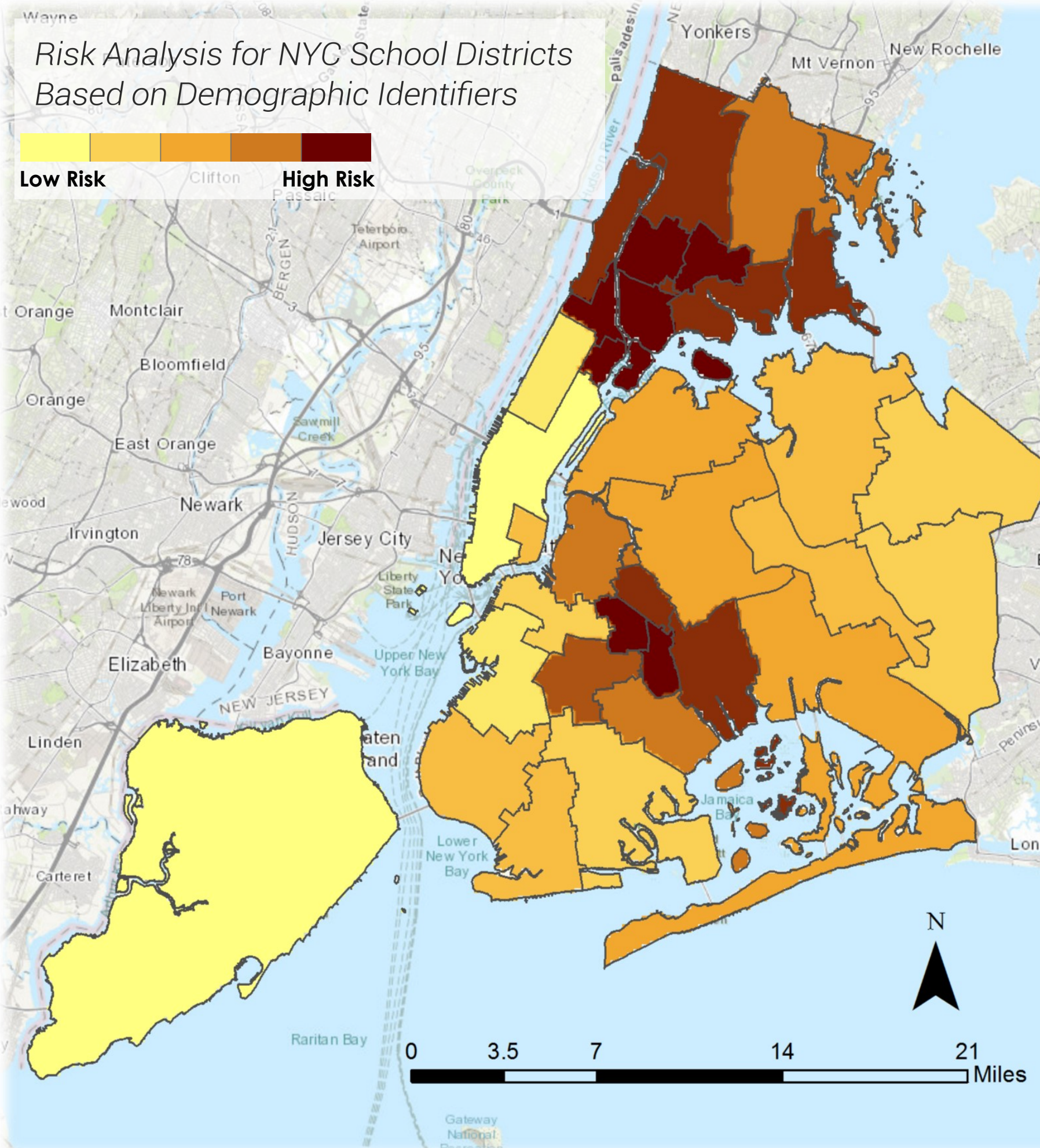
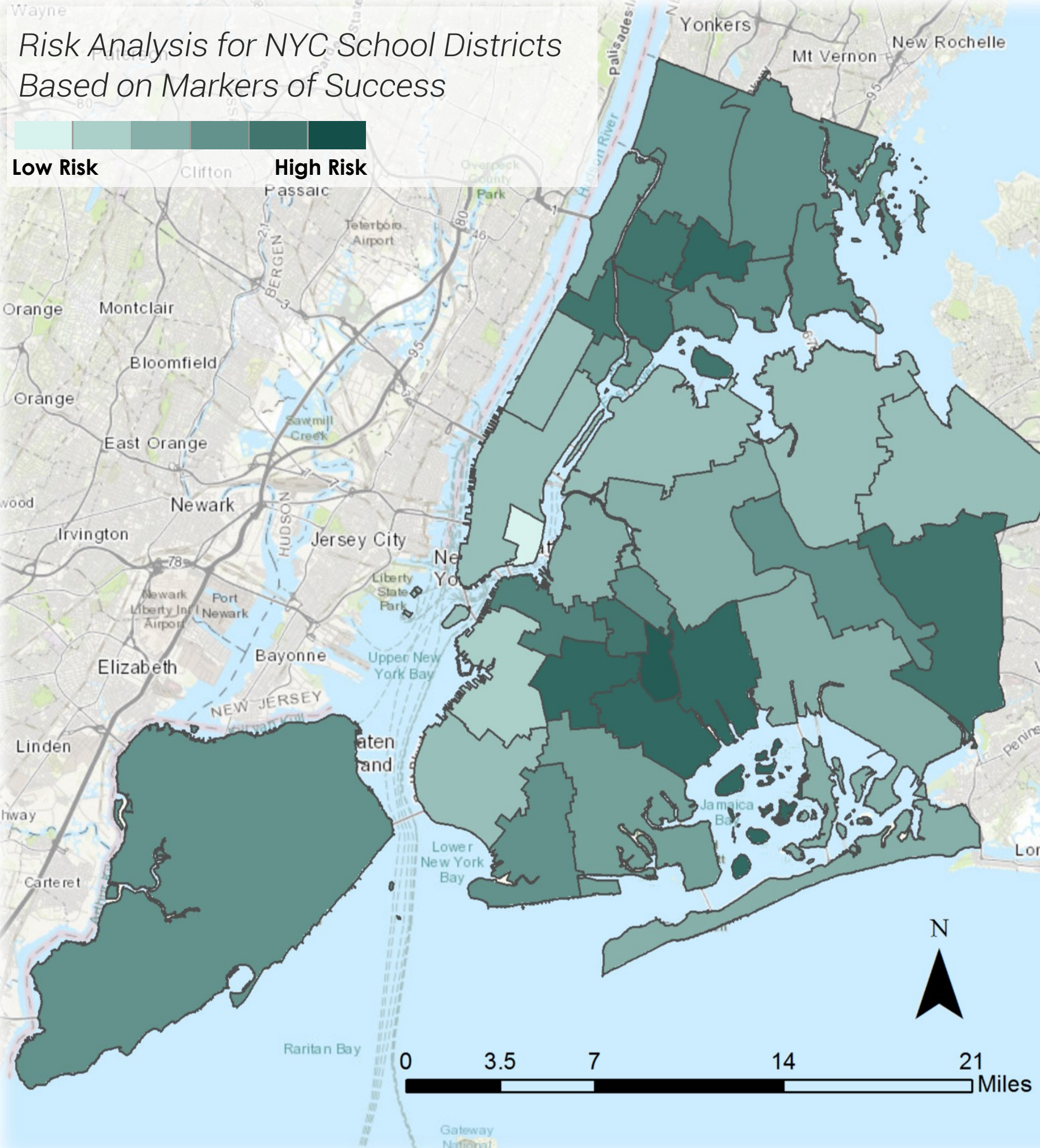
Education has come to be considered

“the great equalizer” by many who see it as a means of attaining social and economic equality. However, this narrative is a myth. It is premised on the presumption that the education system is equal for everyone—which it is not.

Several agencies have dedicated efforts to examine these disparities. Namely, to see where young people of color in New York City stand compared to their White peers in the areas of Education, Economic Security and Mobility, Health and Wellbeing, and Community and Personal Safety. Their data reveals that disparities still exist in many of these areas, and that they affect demographic groups differently. Taking a closer look at New York City’s public school system, we can begin to uncover some underlying factors that define an individual’s educational experience. Moreover, by presenting this information, we can recognize the need for social and policy change that addresses these disparities in hopes of establishing truly equitable education.

## METHODS

A risk analysis was performed for both maps. Map 1 is a risk analysis based on four markers of education success: ELA scores, Math Scores, Attendance Rates, and Dropout Rates. School districts were ranked on ELA scores, Math Scores, and Dropout Rates on a scale from 1 to 5 (1 representing higher risk). The Attendance Rates were ranked from 1 to 3 (1 representing higher risk). Using raster calculation, the four scores were added for each school district generating a scale from 4 to 18. Map 2 is a risk analysis based on demographic identifiers: race and income. The race category ranked the districts based on percent of White students (1 having lowest percentage of White students, higher risk) and the income category ranked each district from 1 to 5 based on the average median household income. Raster calculation was used to add the two numbers, resulting in a scale from 2 to 10.



**MATEO GALEANO LONDOÑO**

Tufts University, Civil & Environmental Engineering  
Presented on December 7, 2017

Projection: NAD 1983 StatePlane New York  
Data Sources: NYC Department of Education

## RESULTS & DISCUSSION

NYC School Districts with Highest Risk and Lowest Risk	
School District	Risk Score
<b>Lowest Risk</b>	
1	17
15	15
2	14
<b>Highest Risk</b>	
23	7
12	8
17	8

From the risk analysis calculation, the school districts at greatest risk are districts 23, 12, and 17. These districts serve neighborhoods such as Brownsville, Belmont, and East Flatbush. These neighborhoods are

home to predominantly Black and Latino residents (over 75% of each of these neighborhoods is Black/Latino). On the other hand, the lowest risk scoring districts 1, 15, and 2 cover the wealthiest neighborhoods in the city. The risk analysis reflects a trend that the students with the lowest risk, or highest chances of educational success in New York City, are those residing and attending school in wealthier and Whiter school districts.

Map 2 explores this trend by displaying the school districts’ percentage of students of color and average median household income. The areas of high risk are those with highest percentage of students of color and lowest average median income. Looking at the two maps, we begin to see similar areas of risk. The cluster of districts in Brooklyn (districts 23, 26, 19) as well as Harlem, and the South Bronx (districts 4, 5, 7, 9, and 12) display the highest risk on both maps. Ultimately, New York City’s school districts with the highest percentages of students of color (also reflected lowest medium income) are at the highest risk of educational failure. In other words, race and income still greatly dictate one’s educational success, and ultimately, one’s social and economic mobility.

## LIMITATIONS

Some limitations for the risk analysis is that the calculation used simply added all of the scores together, placing equal weight in determining risk. In reality, there exist many factors, each with different weights, that determine risk. However, the variables used provide a good starting point from which to visualize general trends. Additionally, each school district is comprised varying demographics in both race and income. The calculations used in this project obtains an average for each, which may blur the nuances in these demographics. I explore some of this limitations in the section below by taking a closer look at the relationship between race and academic performance.

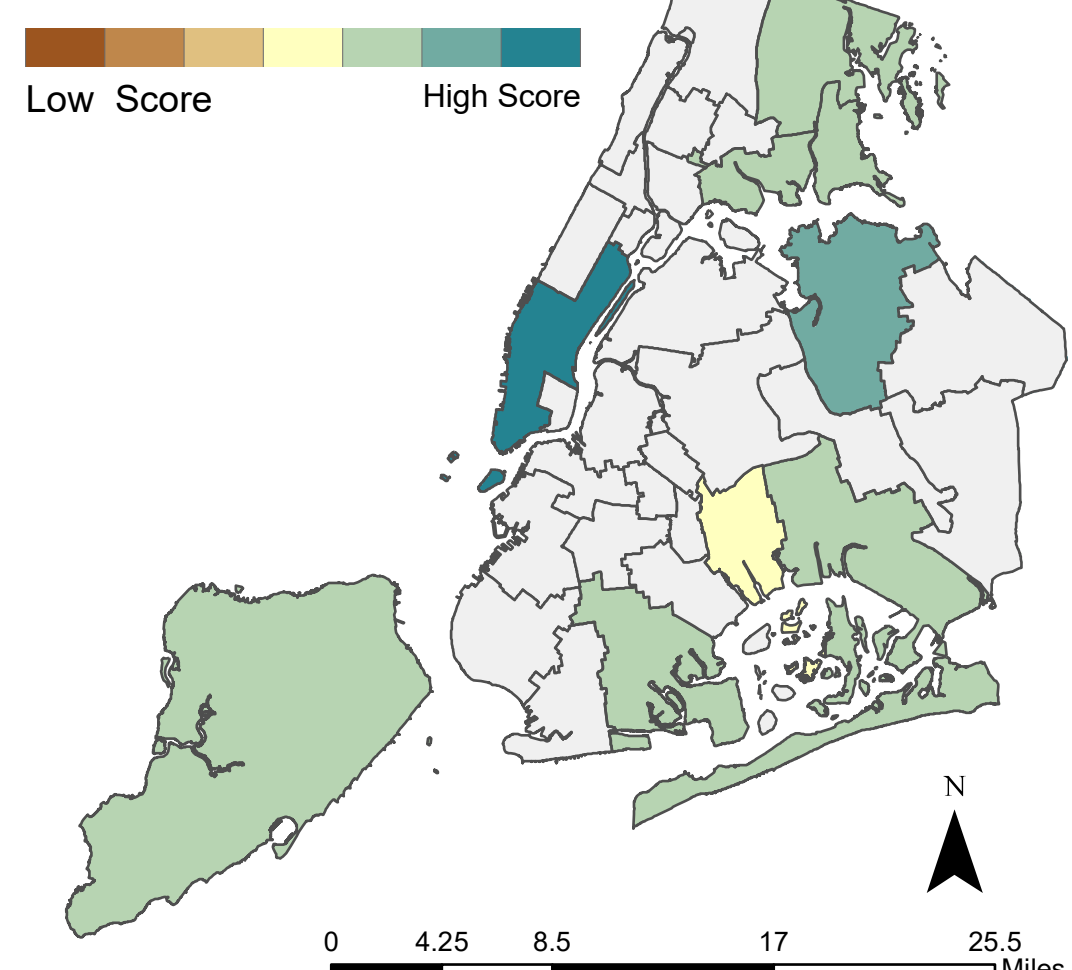
## A CLOSER LOOK

For the two main maps, the markers of educational success were determined by the overall performance of each school district. In reality, the populations in each school district vary greatly in race. Therefore, I wanted to further analyze how different races performed in each school district. To generate these maps, the ELA and Math scores were each ranked on

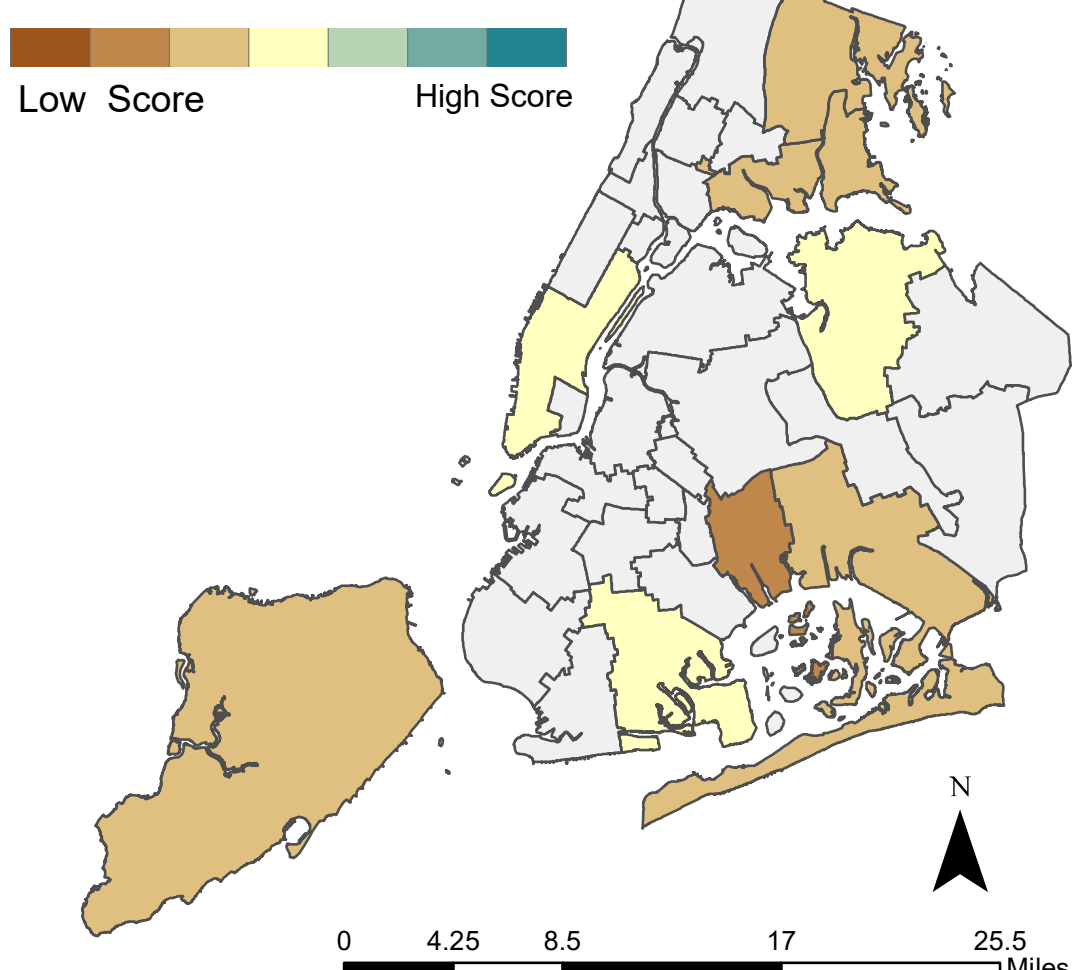
the same scale from 1 to 5 (with 1 being the lowest performance). Using raster calculation, the two scores were added in order to obtain a score range from 2 to 10. The maps reinforce the notion that educational experiences are not the same. Namely, even within each school district, White and Asian students outperform their Black and Latino

counterparts. The issue of education equity is complex and historic, but the only way to begin finding solutions to this problem is by acknowledging the issue in the first place.

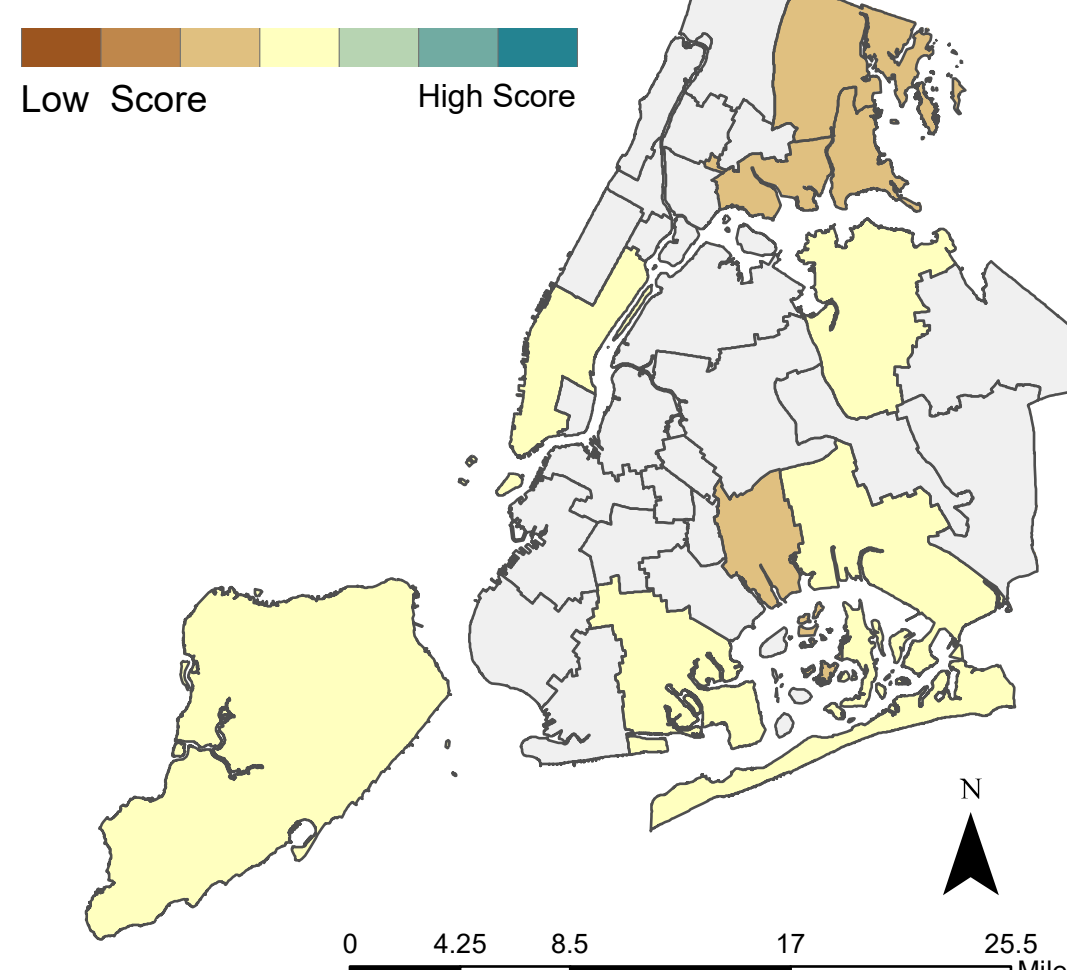
Asian Student ELA and Math Performance by School District



Black Student ELA and Math Performance by School District



Latino Student ELA and Math Performance by School District



White Student ELA and Math Performance by School District

