



correlation.:  
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# High Performance Factors In NYC High Schools



## Team 23:

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486 high school schools in NYC

1.1 million students in K-12

Yet, over 20% of high school students do  
not graduate

Why?



# What influences graduation rates in NYC public high schools?



## *Guiding Questions:*

In what way is school funding allocated to address socio-economic need?



How does societal disparities affect graduation rate?



What are some implementations that can improve graduation rates in NYC?



PROBLEM

OBTAI/CLEAN

EDA

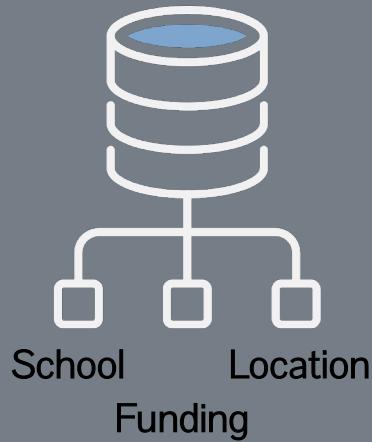
INSIGHTS

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# There is not a single, accessible dataset that responds to our question

## Extracting Data Sets



- **Dataset One: School Quality Reports**
  - DBN (unique identifier), Enrollment, Economic Need Index, and Demographic data of the New York City K-12 Public Schools
  - NYC DOE only collects racial data in the following categories: White, Asian, Black, and Hispanic
- **Dataset Two: School Transparency**
  - Total Funding, Federal Funding, and State & Local Funding per school
- **Dataset Three: School Location**
  - Pulled the Longitude and Latitude for each school

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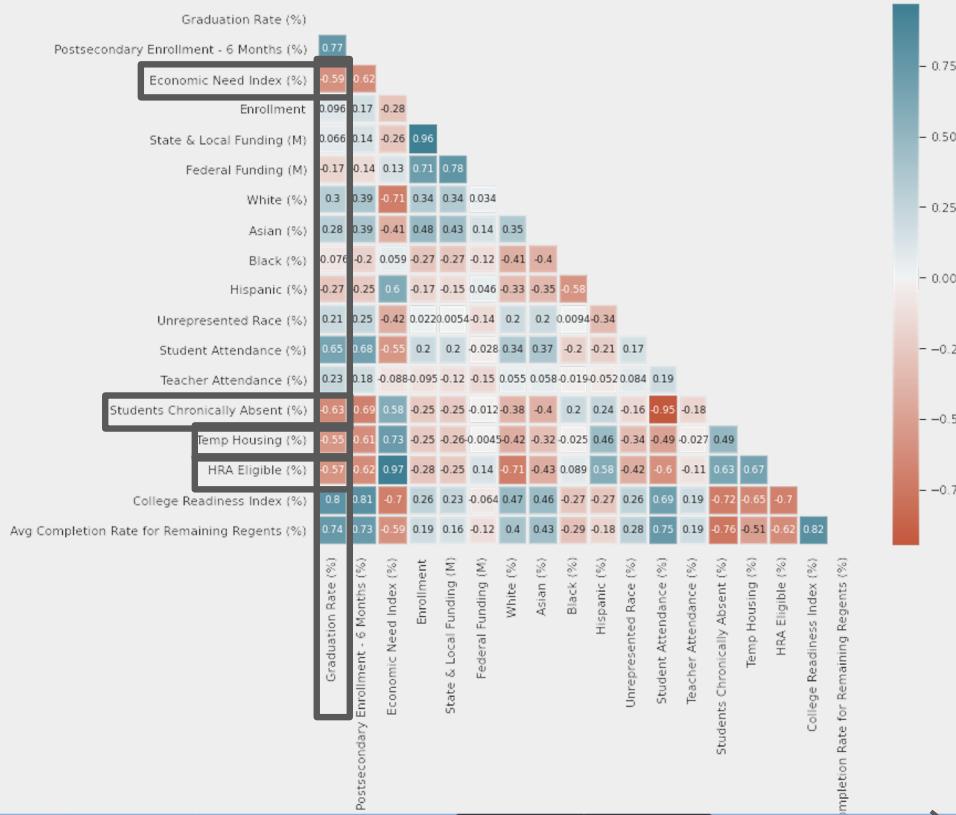
# We utilized three analytical perspectives to investigate factors that influence graduation rate.

- **Correlation Matrix**
  - Summarize data in order to observe patterns
  - Determine factors **strongly** related to graduation rate
- **Linear Regression Analysis**
  - Measure the relationship among the factors
- **Interactive Public Tableau Dashboard**
  - Accessible platform to share data
  - Provide a snapshot of NYC education system



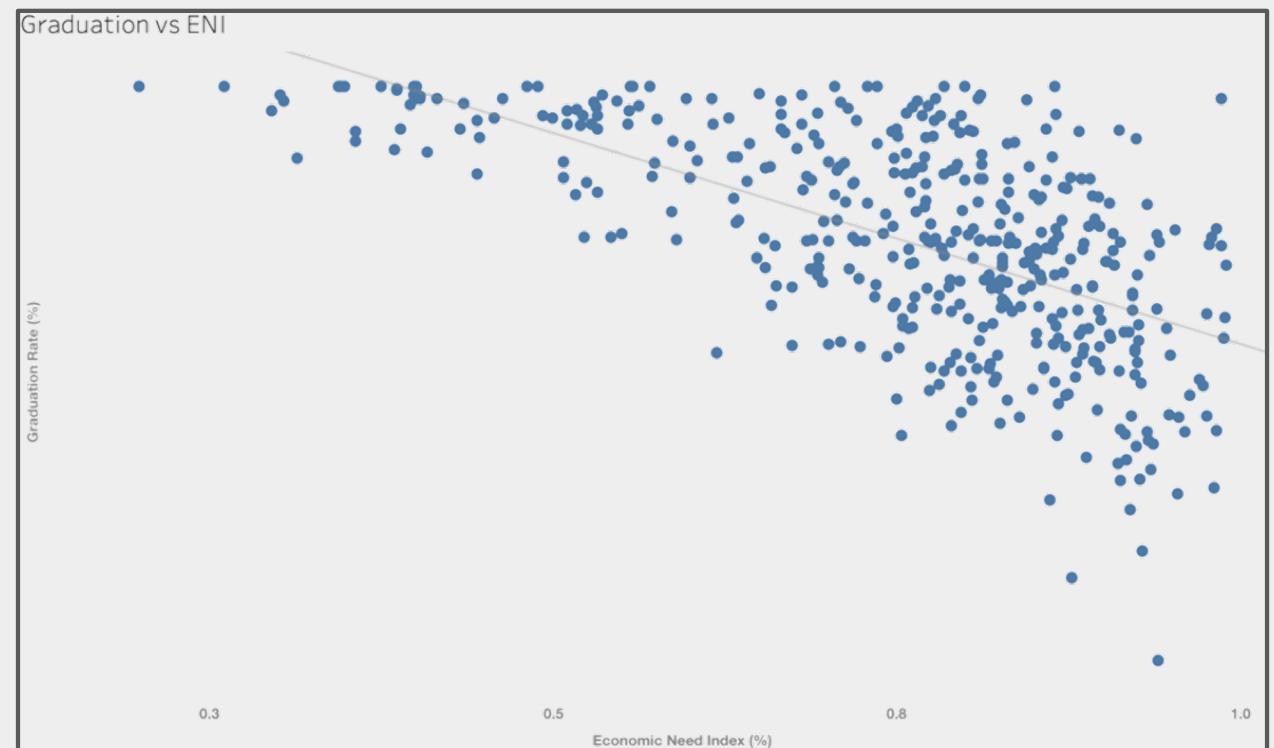
# Economic Need Index (ENI) has the most comprehensive negative effect on graduation

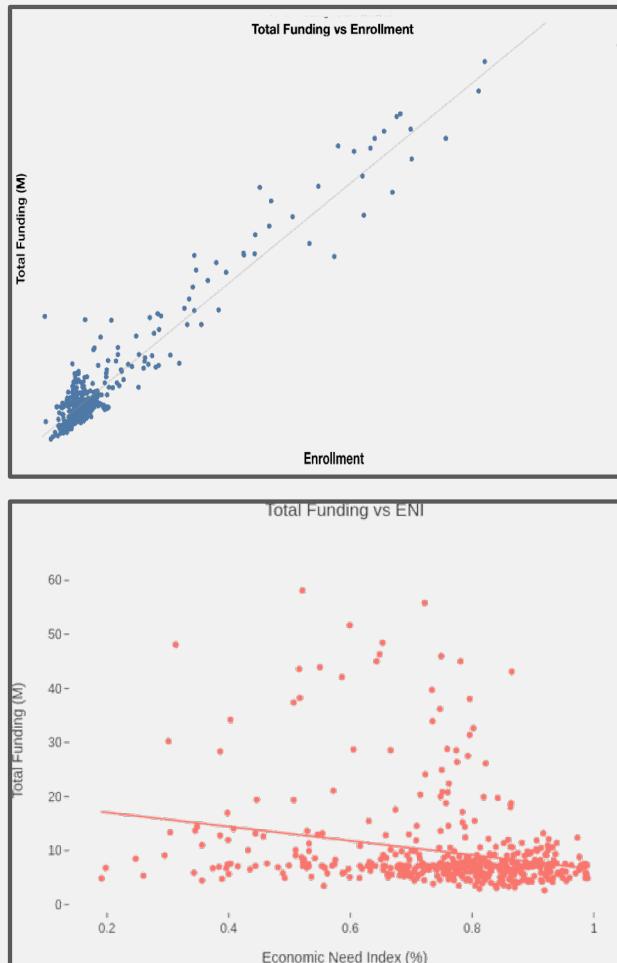
Correlation Matrix of School Features



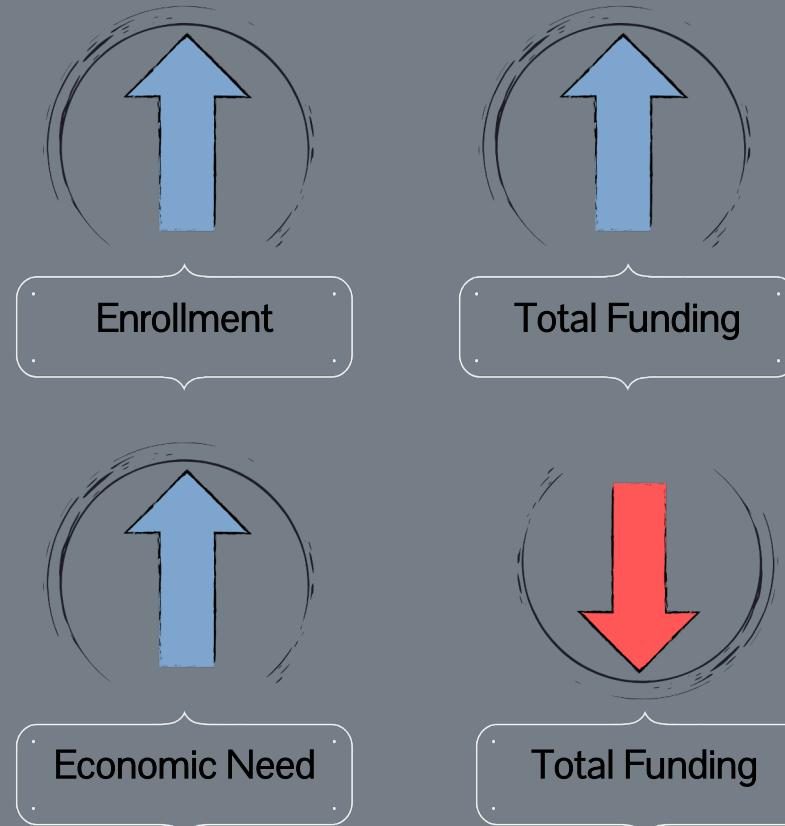
- ENI varies depending on the school

## Schools with a higher ENI have a lower graduation rate



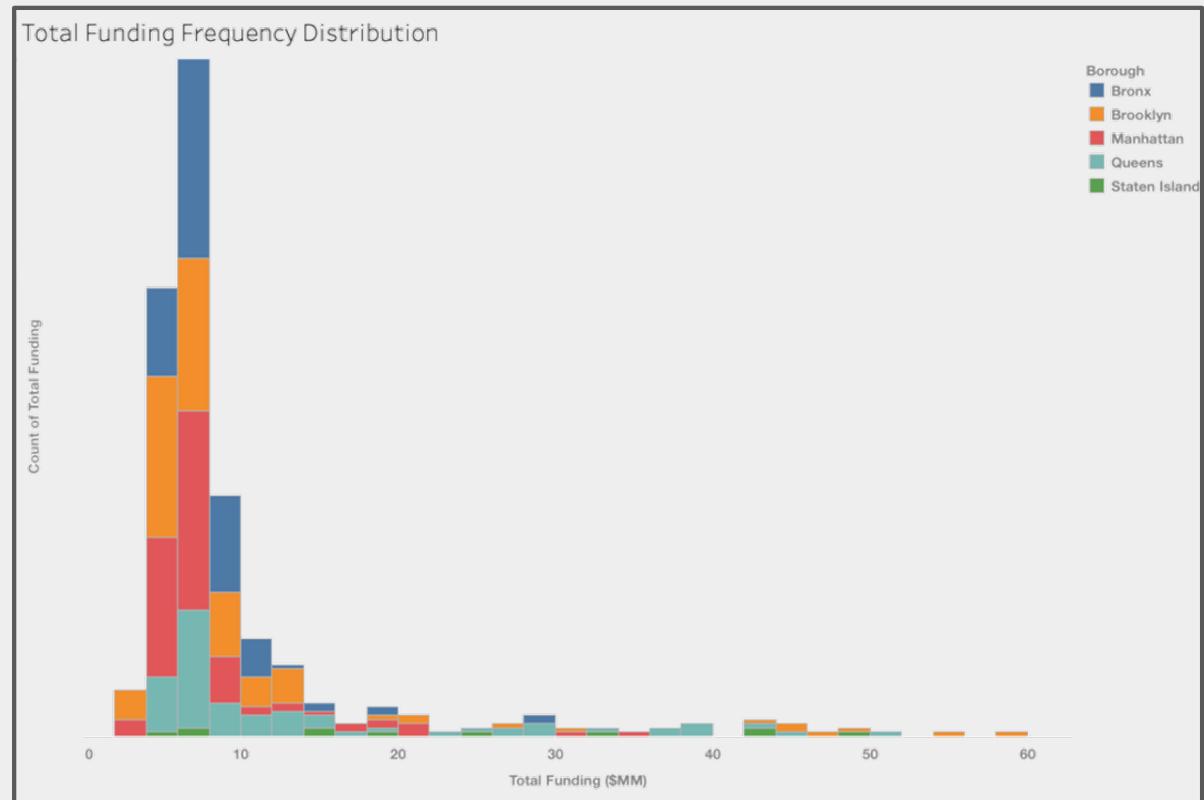


# ENI is not a major consideration in Total Funding Allocation



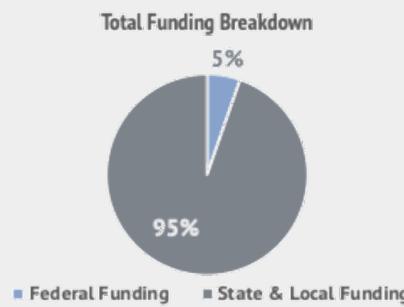
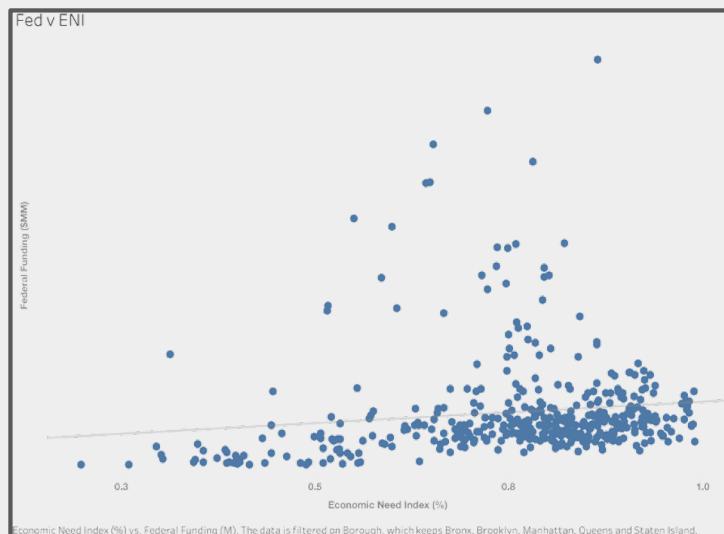
- ENI is not a singular economic variable
- 70% of school receive the between \$4 and \$8 million

## Despite a range of ENI, total funding is administered evenly across schools

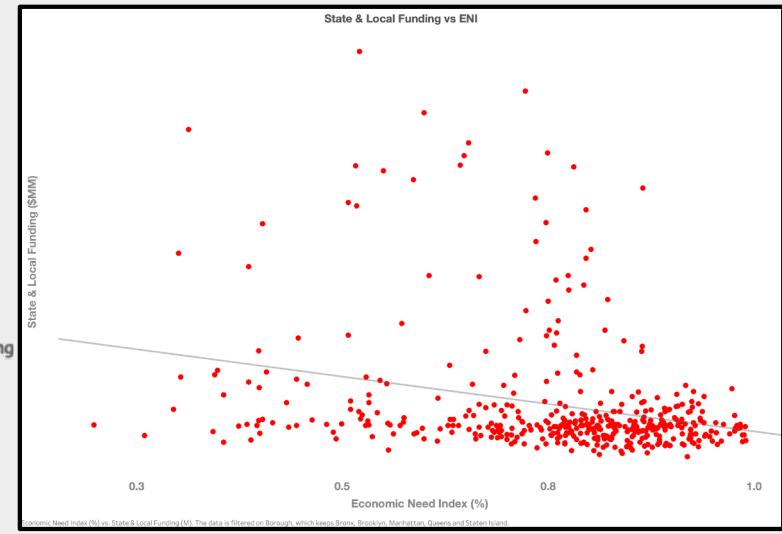


# While Federal Funding accounts ENI, State & Local Funding does not

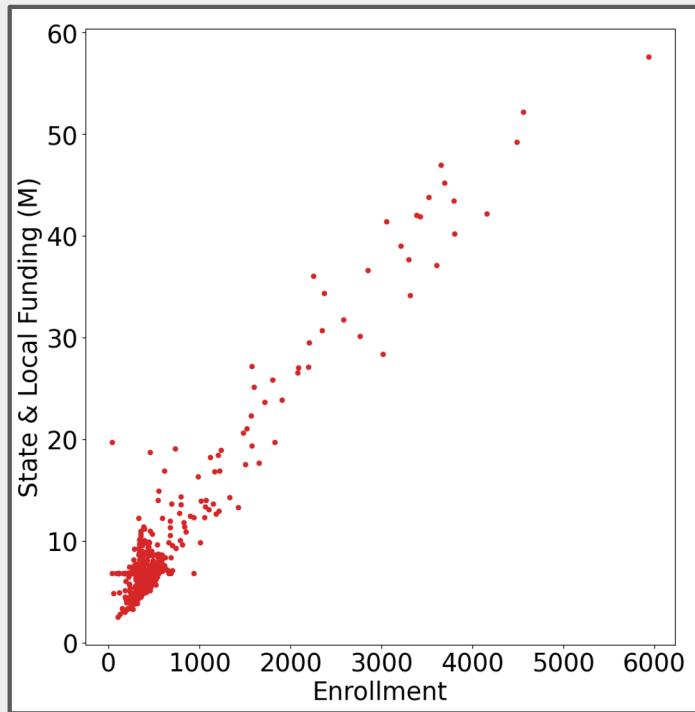
Federal Funding v. ENI



State & Local Funding v. ENI



# State & Local Funding is distributed based on total enrollment at the expense of ENI



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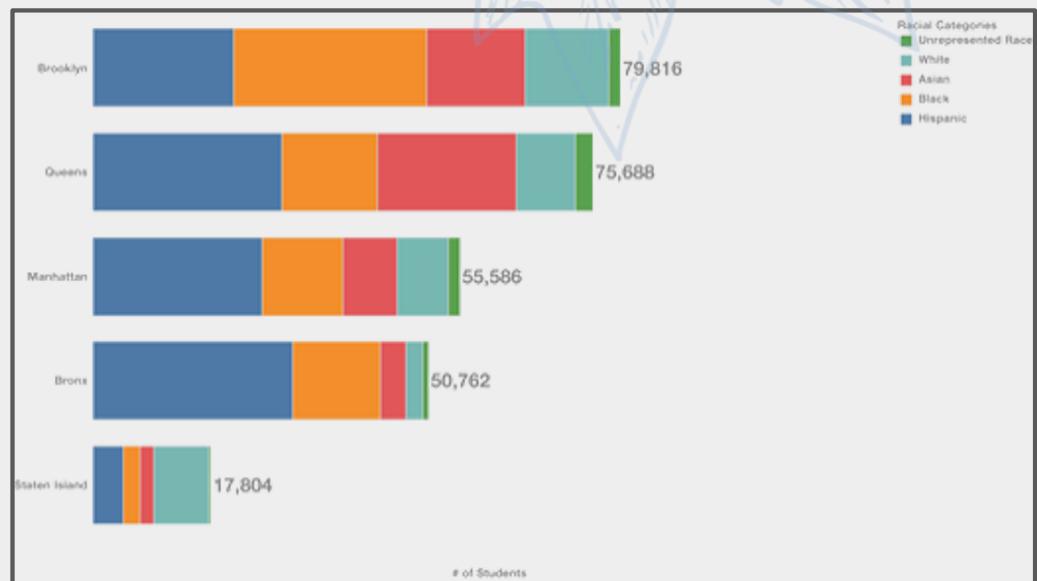
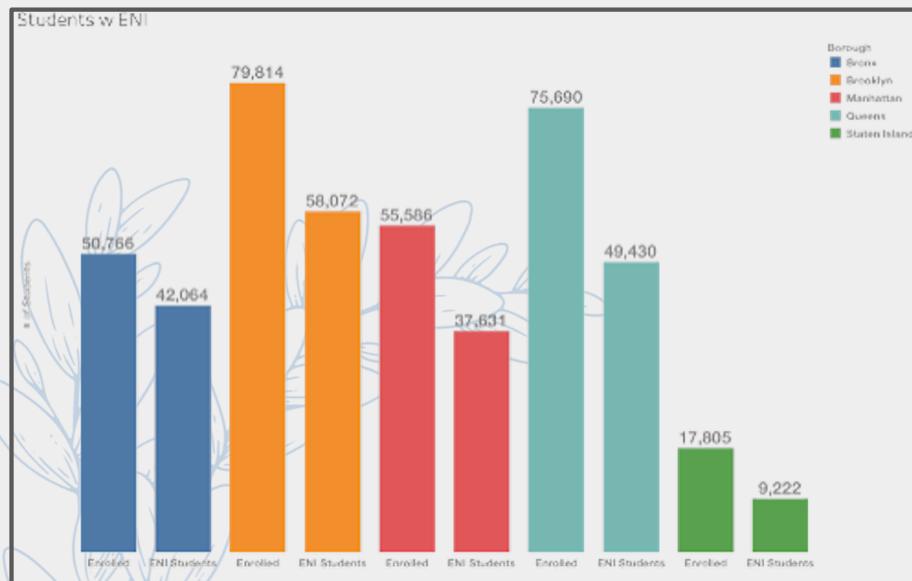
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# Who is affected?



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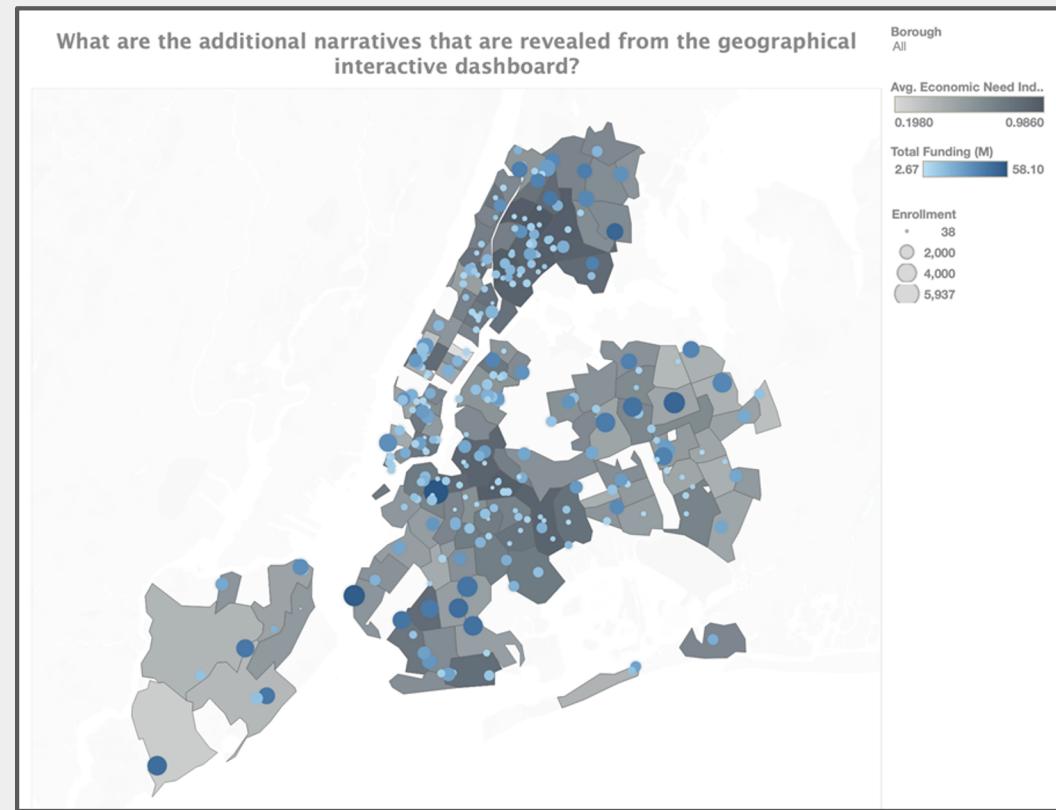
## Recommendations and Considerations

- **Distributing funding solely based on Total Enrollment** disregards the various economic needs of the schools and students
- **Distribution of funding that addresses ENI** is likely to encourage and increase graduation rates across NYC public high schools
- Promote more **consistency** in regards to the funding policies according to ENI across both State & Local as well as Federal Funding
- **Graduation Rate Factors are dependent on other factors:** A high ENI rate is correlated to a high percentage of students in a school in temporary housing, which may influence school's attendance rating, which is another factor that is negatively correlated with graduation rate
- **New Tool for Policy Makers:** Utilize public, interactive dashboard to analyze the entire scope of the NYC Department of Education



# Interactive Tableau Dashboard Demo

- Multiple Insights and narrative from our interactive dashboard, which includes additional factors that also affect graduation rate



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# Thank You!



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