

# Data 608 Final Project Write-UP

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**Topic:** New York City Public School Data Visualization for Students, Teachers and Family

**Data source:** [NYC OPEN DATA](#)

**Data used:** [Demographic Snapshot](#)

**Project Code:** [LINK TO GIT](#)

For my project I utilize NYC open data to create an app using the [Dash in Python](#) to present the data in a way that New Yorkers who struggle with interpreting data can understand. The main parameters for this data are year, borough, gender (male/female), ethnicity (Latinx, Black, Asian, White & Not Represented), and Other Categorizations (Disabilities, Poverty and Total Enrollment).

The first graph in the app only requires the user to specify the borough they are interested in looking at and displays the sum of students reported in who fall into the category as Disabled or Poverty. These are placed side by side next to the total enrollment to show what proportion of students out of the total enrollment all in this category. We can see from that there are substantial students under the poverty line in the Bronx (relative to the total enrollment) compared with other boroughs, and that number seems to be increasing from 2013 - 2017. Generally speaking, for all boroughs, students below the poverty line are increasing. This data is super helpful for teachers and students in advocating for change of policy or resources at their schools on the borough level. In addition, members of the community can use this data to initiate new programs for students that reflect the student body and lead for more culturally responsive educational opportunities.

The next section of graphs are pie charts because they display relative data (to school enrollment). Here we can see that the proportion of students who identify as female and male are consistent throughout the years and boroughs. This makes me think that a deeper dive into gender data is necessary to see patterns within boroughs or by districts. The second pie chart displays ethnicity information for students by borough and year. We can see a general trends for each borough and how they may be changing over the course of the years. This data can be used by community members and school staff/students to help drive policy making and draft letters for change.

Being able to visualize data in this way (especially when it comes to people who are immediately affected by that data) is super powerful for to the voices of people from underrepresented groups. Without data to back up claims and community projects, it is becoming increasingly hard for them to advocate for themselves and others who may be overlooked. In future projects I hope to do a deeper dive and filter out school by district to help unlock more insights that may be used by students and teachers to help drive positive changes for their school and their communities.