

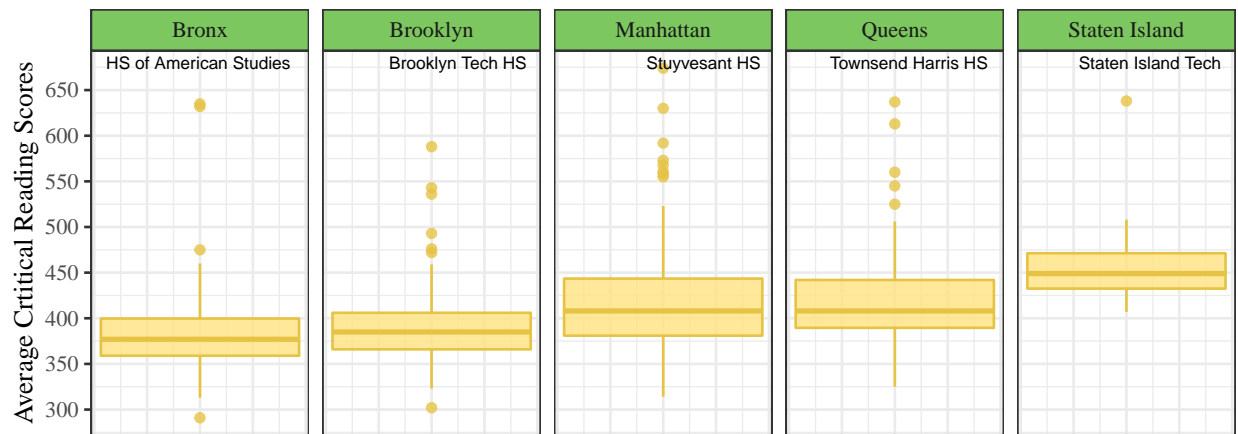
New York City SAT Scores: Exploratory Data Analysis

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28 September 2020

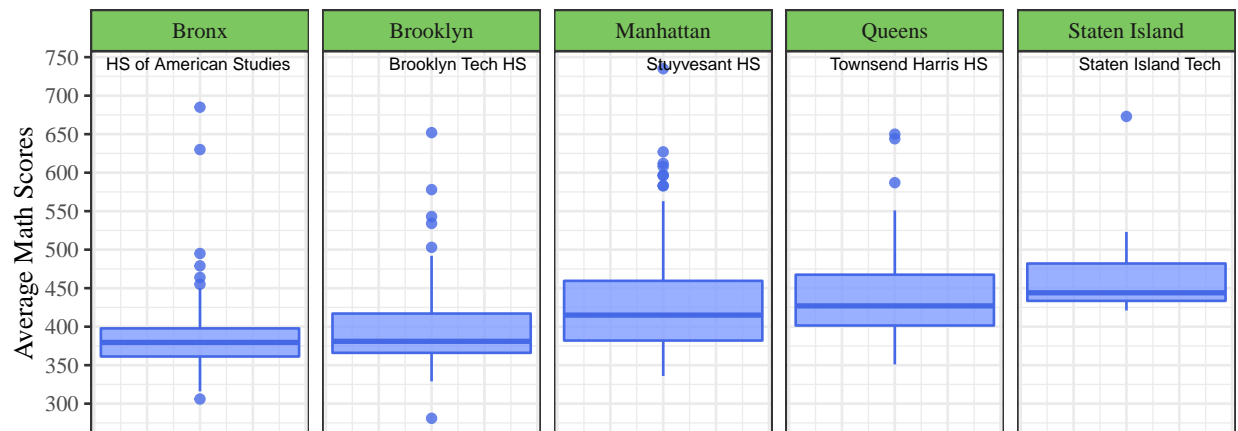
1. & 2. Box plots of SAT distributions by borough

Distribution of Average Critical Reading Scores for the SAT by NYC Borough



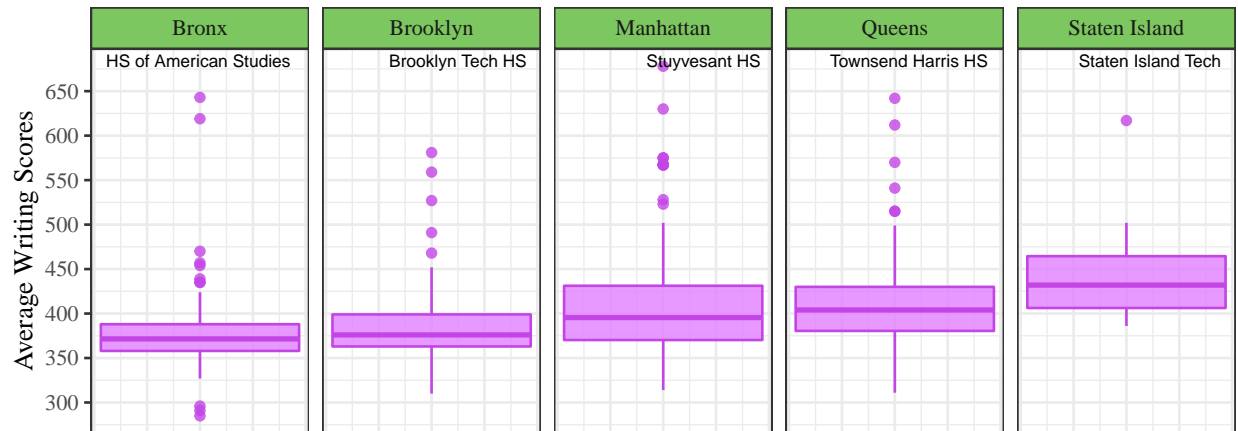
Source: <https://data.cityofnewyork.us/>

Distribution of Average Math Scores for the SAT by NYC Borough



Source: <https://data.cityofnewyork.us/>

Distribution of Average Writing Scores for the SAT by NYC Borough

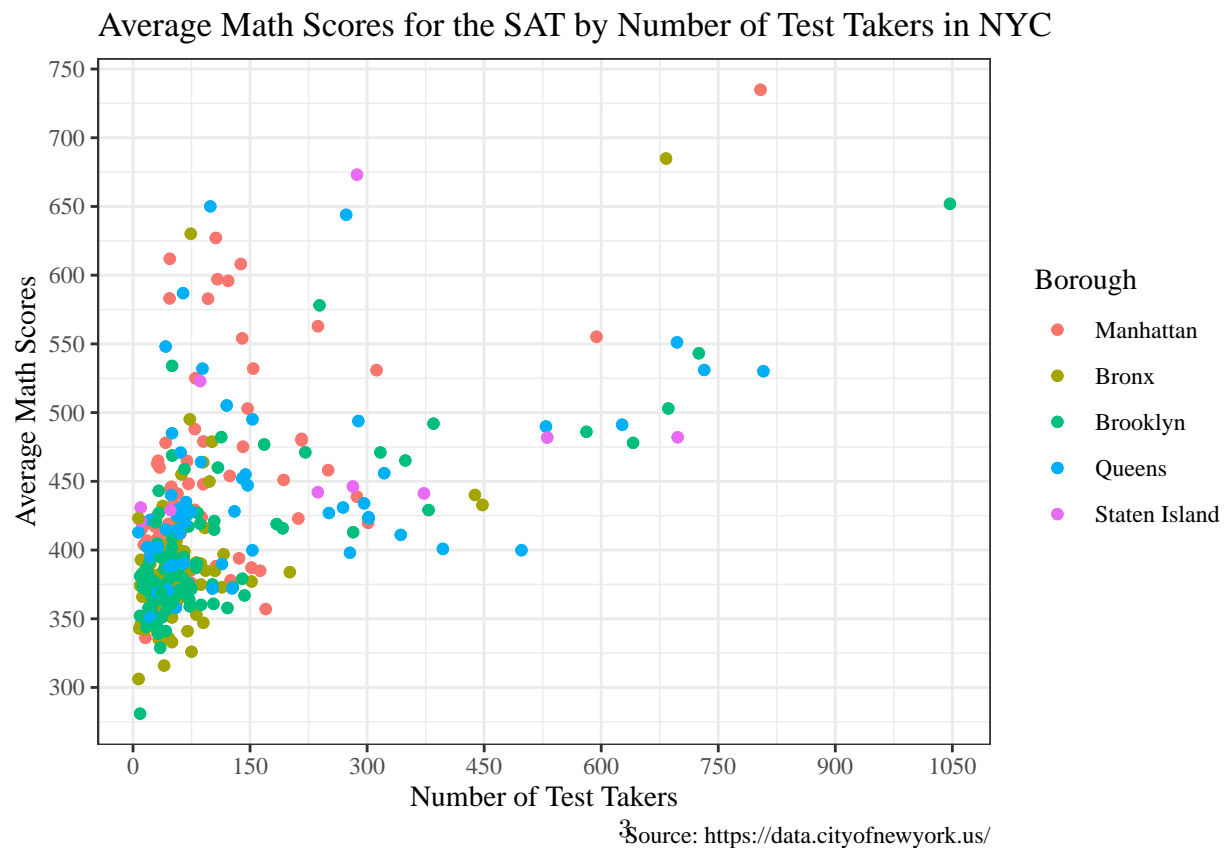
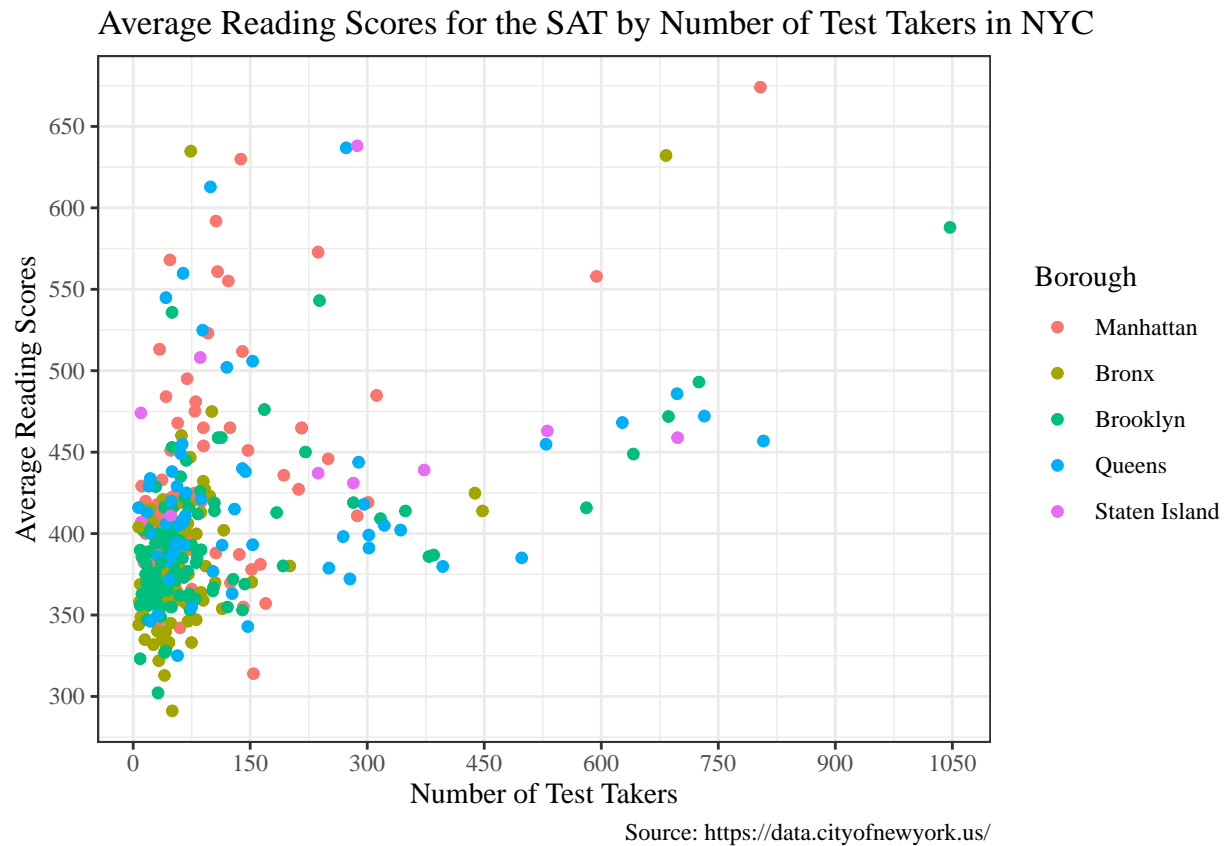


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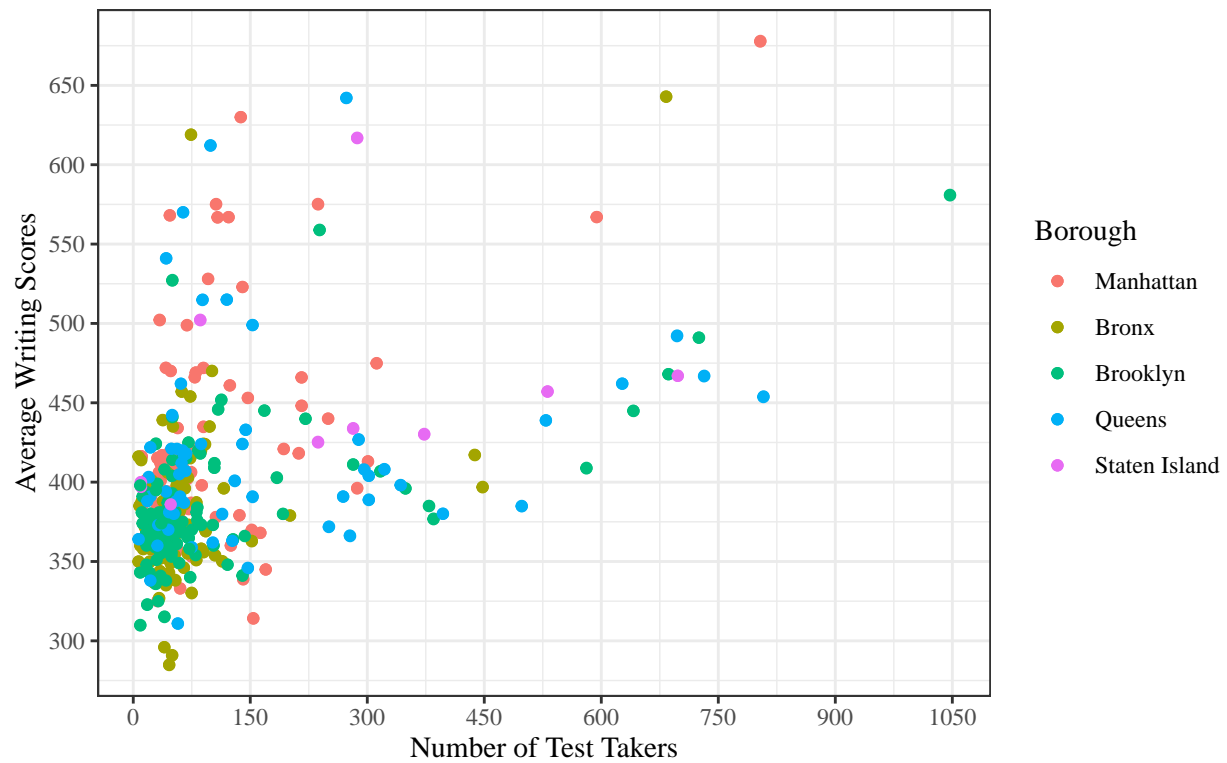
3. Summary stats of scores for each section of the SAT in each borough

Borough	Reading Scores			Math Scores			Writing Scores		
	Mean	Median	SD	Mean	Median	SD	Mean	Median	SD
Manhattan	422.5408	408	64.92885	434.8061	415.0	73.46262	414.6020	395.5	67.95901
Bronx	383.5091	377	45.34167	386.2000	379.5	49.12852	379.0636	371.5	46.04092
Brooklyn	392.2294	385	42.71495	398.0275	381.0	53.16056	385.1376	376.0	42.68760
Queens	424.1525	408	60.70301	443.1356	427.0	64.08385	418.3898	404.0	62.90634
Staten Island	466.7000	449	67.30206	477.0000	444.0	75.73345	451.5000	432.0	67.98243

4. Exploring the relationship between the number of test takers and SAT scores for each section and across the five boroughs.



Average Writing Scores for the SAT by Number of Test Takers in NYC



Source: <https://data.cityofnewyork.us/>

5. Results of analysis

In my analysis, I have found that Staten Island schools tended to perform higher on individual sections of the ACT, but Manhattan had the greatest variance and the highest scores came from Stuyvesant. It appears that there is not much correlation between the number of test takers and the average scores by subject. Perhaps in a further study I can examine factors such as age, race, or socio-economic backgrounds to see if this has any influence on test results.