PyCity Analysis Observations

**Observation 1**: Within each high school, the average math scores and reading scores do not improve over the students’ high school years. The average scores remain within 2 points over all four years. As a whole, however, smaller and medium sized schools outperformed large sized schools on the percentage of students passing math (89-91% passing vs 67%).

**Observation 2**: Although one would be led to believe more school spending would result in higher scores, the opposite is true. Schools that had lower spending ranges per student actually had higher average math and reading scores than those schools with higher spending ranges per student. Additionally, the lower spending schools had higher overall percentages of students passing.

**Observation 3**: From this data, we would determine that the total number of students does determine the % overall passing rate. We can see schools with a smaller student population had higher average scores and passing rates than schools with larger populations. Yet, there are more factors to consider. One factor worth considering is how average scores and percentages per school are affected based on the number of students a school has enrolled. This means there is an imbalance in the number of scores we have per dataset (per high school).

**Observation 4 and Conclusion**: Charter schools dramatically outperform Districts schools, however, like with the other observations I have made, more data would need to be researched in order to fully determine what factor or factors are influencing this entire data for PyCitySchools. For example, is it the educational background of the teachers? Could it be due to zoning laws and the specific areas where the schools are established?