# PyCity Schools Conclusions

**Observable Trends**

* The dataset encompasses a total of 15 schools, 39,170 students. The total students average Reading score is 81.88 which is higher than the average Math score 78.99. The Reading pass rate (85.81%) is greater than the pass rate for Math (74.98 %). The overall pass rate is 65.17%. These findings indicate that students perform better at Reading compared to Math.
* The school summary finding showed that from the 15 schools, 7 of them are at the district level, and the remaining 8 at the charter level. The number of students in schools ranged between 427 (Holden High School) to 4976 (Bailey High School). The analysis also showed that district schools have more students than charter schools.
* The total budget field of the school summary showed the amount of money that each school was allocated. The maximum budget of $3,124,928 was allocated to Bailey High School, and the least budget of $248,087 was allocated to Holden High School. Even though Bailey High School had the highest budget, the analysis shows it is not one of the top performing schools, hence a re-evaluation of the budget for this school is required so that additional funds can be diverted to other schools.
* Regarding budget per student, Huang High School that allocated $655 has the highest budget per student, and Wilson High School that allocated $578 has the least budget per student. Huang High School is one of the lowest performing school in the district.
* The findings from the data showed that in all metrics (average, percent, and overall) of Reading and Math scores, Charter schools have a greater score than District schools. Pena High School has the maximum (83.84) average Math score, with 94.59% percentage of students passing Math, and average Reading score (84.04) with 95.95% of students passing Reading. This implies that Pena High School is showing positive trend in student averages and pass percentage in Math and Reading.
* Huang High School has the lowest average Math score (76.63) and lowest percent of students passing Math (65.68%) among all the schools. In terms of highest Reading scores, Thomas High School has the highest percentage of all schools (97.30%). Rodriguez High School has a lower average Reading score (80.74%), and Ford High School has a lowest percentage for passing Reading (79.30%). In the overall passing category Cabrera High School has the maximum passing percentage rate (91.33 %), and Rodriguez High School has the lowest percentage of (52.99) students who are passing.
* Grade 11 students at Holden High School have the highest average Math score (85) comparing all schools and grades of 9 ,10 ,11 and 12 while Holden High School grade 12 students have the highest average Reading score (84.70).
* The other irregular finding of this analysis is that when the budget per student increases student's average Math score, the average Reading score, percent of passing Math, percent of passing Reading, and the overall passing decreases.
* The data revealed that when the number of students sizes is higher in schools, the average Math scores, average Reading scores, passing Math, passing Reading, and overall passing decrease. So, we can infer that, when student size rises, it negatively influences student academic results. Therefore, schools, cities, districts, and charters should work on finding the right student size per school to achieve good academic results.

PyCity Schools Conclusions

After performing analysis on the data, the following conclusions can be drawn:

The schools with higher budgets, did not yield better test results. By contrast, schools with higher spending per student actually (>\\$630) underperformed compared to schools with smaller budgets (<\\$600 per student). Thomas high School being the only exception.

The smaller and medium sized schools out-performed the large sized schools on passing Math performances (89-91% passing vs 59% on average).

Charter schools out perform district schools 90.43% to 53.67%. However, more data is required to draw appropriate conclusions on which type of school is better.