**Academy of Py: Observable Trends**

From both the “Top Performing Schools” and ”Bottom Performing Schools” analysis, we see Charter schools occupy the top 5 performing schools and District Schools occupying the bottom performing schools. We see this trend as well under the “Scores by School Type” analysis: Charter Schools display an overall passing rate of 95.10366% while District schools score an overall passing rate of 73.673757%.

However, this observation must be tempered by another trend we see in the data; larger schools (< 2000 students) significantly underperformed compared to medium and small sized schools. From the “Scores by School Size” analysis, although Small (<1000) and Medium (1000-2000) sized schools performed evenly, there is a sharp drop-off for Large Schools. The “% Overall Passing Rate” dropped by roughly ~18.65%. Interestingly, the degree of reduction from Small/Medium sized schools to Large sized schools was much less for the “Average Math Score” (~-5.85%) and “Average Reading Score” (~-2.55%) compared to the “% Passing Math” (~-23.61%) and “% Passing Reading” (~-13.68%) statistics, which leads credence to the notion that larger student size results in lower performance. This is relevant to the Charter vs District school analysis because although Charter Schools outperformed District schools, we see the Top 5 Performing Schools (all Charter) had an average of 1,641.2 students, while the Bottom 5 Performing Schools (all District) had an average of 3,473 students. Clearly, there is reason to suspect the difference in performance between Charter and District schools is due at least in part to school size. Further analysis is required.

Another observable trend is the reduction in performance as budget (per student) increases. This factoid is interesting because it goes in the opposite direction of initial intuition. However, there is clearly a trend among all schools: the “% Overall Passing Rate” is 95.035486% for schools which spend less than $585 per student and gradually decreases until we see a statistic of 73.649382% for schools which spent between $645 to $675 per student (~ 21.39% reduction).