***PyCity Schools Analysis***

Two sets of data were complied for the different schools within the district. The data included the district-wide standardized test results. This included access to every student's math and reading scores, as well as various information on the schools they attend. The necessary calculations were made, and a high-level snapshot of the district's key metrics was constructed in a Data Frame. Next, the necessary calculations were made, and then a Data Frame was created that summarizes key metrics about each school. Once these two main Data Frames were created individual Data Frames were created showing: highest perform schools (Overall %), lowest performing schools (Overall %), math scores by grade, reading scores by grade, scores by school spending, scores by school size, and scores by school type. After the necessary data frames were created conclusions were able to be made.

The spending and passing scores were analyzed for the different “Types” of schools within the district. The two types of schools were either “District Schools” or “Charter Schools.”

The top five performing schools for overall passing percentage were “Charter Schools.” The bottom five performing schools in the district for overall passing percentage were “District Schools.” Overall, for the top 5 and bottom 5 performing schools, total budget was inversely related to overall percent passing. The larger the budget the worse the overall passing percentage. The smaller the budget the better the overall passing percentage.

Passing scores were analyzed and compared per grade as well as size of the school. Overall passing percentage for reading was better than math for all grade levels. Percentage for passing reading was better for small and medium schools than large schools. Overall passing percentage was extensively better for small and medium schools than larger schools.

Further analysis is needed to prove statistical significance. However, the creation of these data frames helps compare the values and visually allows for conclusions to be drawn. Overall, charter school types had better standardized passing percentage than district schools. Charter schools also had a lower budget than district schools and produced a higher passing percentage. Size of the school made a significant difference in overall passing percentage. Larger schools only had approximately fifty fiver percent passing rate with small and medium schools have a ninety percent passing rate.