**PyCity Schools Written Analysis**

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Summary of Analysis

Overall, the goal of the PyCity Schools Analysis was to work with school and standardized testing data to find relationships and pertinent information that helps the board/Mayor make strategic decisions regarding future school budgets and priorities.

Our first analysis was the district summary, the results from that summary displayed information such as total budget, average scores, and total students, from all the schools in the district.

Next was the school summary, for this analysis similar results to the district summary are displayed, only it was calculated for each school instead.

For the Highest and Lowest-Performing School analyses, the top and bottom 5 schools were separately displayed by by sorting values in ascending/descending order. It was interesting to see that Charter schools make up the top 5 performing schools and District schools make up the bottom 5.

The next analyses were Math and Reading Scores by Grade, for these, we did some calculations to find the average math/reading/overall score for each grade- while keeping it categorized by school.

For the Scores by School Size/Spending analyses, we did some calculations and binning to add a new column with the findings to the dataframes. The information displayed on these was similar to the Per School Summary data frame, just with some new info added in.

The final analysis, Scores by School Type, included more calculations to display the average score and percent passing math/reading/overall for each school type. I found it interesting that the average math score between Charter and District schools was only a difference of about 6.5%, because the Percent Passing Math difference in comparison was about 27%.

Conclusions/Comparisons

After finishing these analyses and reviewing the findings, I was able to draw several conclusions. The most obvious relationship was between the top performing schools and the type of school being a Charter school. So, what is it about the Charter schools that contribute to their successes?

Well, when looking at the Scores by School Spending analysis it was interesting that it displayed a consistent increase of scores with each increase in increment of the Spending Range. This stood out to me because the top 5 performing schools had an average budget per student of $606.40 which was lower than the bottom schools’ average budget per student of $646.60. This is slightly contradictory to the previous relationship found in Score by School Spending, so I cannot conclude that the per school student budget is a major factor to these schools’ successes. Rather one factor, among several other factors... so what are the other contributing factors?

Well, In the Scores by Schools Size analysis, we can see that small and medium schools have consistently higher school average scores/percentages than the Large schools. This relationship is evident in the bottom performing schools, which are all made of up by large schools, while most of the top performing schools are Sm/Med schools (Wilson is large). So, we can conclude that school size is among the group of contributing factors to these schools’ successes.

Do these conclusions play a large enough role in these schools’ successes that strategic decisions can be based on this information in the future? They are pieces in the puzzle, and they help for sure, but I don’t think it’s enough information alone. These conclusions reflect moderate relationships to schools’ success, but we are missing other information that could translate to a stronger relationship, and therefore give us a higher likelihood of making decisions that strongly impact the crisis that is District schools passing percentages. Some other information that could potentially help uncover other more specific relationships include average class sizes or student support available (i.e guidance counseling, tutoring, & reduced/free lunch)