PyCitySchools Analysis

The purpose of this analysis is to examine district-wide standardized test scores to determine trends in school performance in order to make decisions regarding future school budgets and priorities.

Analysis was performed using Python and the Pandas Data Analysis Library.

Key findings include: 1) Schools with the highest overall passing grades of standardized tests are charter schools, where more flexibility is given regarding curriculum, teaching methods, and organizational structure; 2) Schools with smaller student populations produced higher average scores in both math and reading; 3) Average spending per student is higher where scores are lower.

For charter schools, average math scores were 83.5 and average reading scores were 83.9 with a 90.4% overall passing rate. For district schools, average math scores were 77.0 and average reading scores were 81.0 with only a 53.7% overall passing rate. This could indicate that the standardized curriculum for district schools needs to be examined and possibly changed.

All of the district schools have large populations between 2000-5000 students. Schools with large populations see a 58.3% overall passing rate. Alternatively, small sized schools with less than 1000 students and medium sized schools with 1000-2000 students have 89.9% and 90.6% passing rates respectively. Indications are that perhaps using the budget to build additional schools so that class sizes can be kept smaller would be advantageous.

Total school budgets are higher for district schools. However, the charter schools have higher resulted overall passing rates. When the average spending per student is less than $585, the overall pass rate is 90.4. When the average spending per student is $645-680, the overall pass rate is 53.5. The district schools could be offering a broad range of programs and services that are beneficial to the community. However, budgeted money might be better spent focusing on key curriculum to improve math and reading scores, as well as overall passing rates.