Pandas-challenge: Analysis

This data analysis provides an overview of 15 schools within a particular district and breaks down the data to take a closer look at the contributing factors to differences in students’ scores in math and reading, the percentage of students passing math and reading, and the percentage of students passing overall. Using student outcome data along with information about each schools’ budget, type, and size, we can evaluate the factors that lead to increased student success to make decisions to improve student outcomes within the district.

Average math scores are similar across grade levels in all 15 schools, but the percentage of students passing math and reading varies greatly across schools. This suggests that the mean scores may not be the best measure of central tendency to evaluate performance for each school. Taking a closer look at overall passing rate, a large difference is seen between school sizes. Small and medium schools, collectively defined as holding less than 2000 students, have an average of 90.3% overall passing rate. Large schools holding over 2000 students have a passing rate of 58.3%, indicating that a larger student body population negatively impacts student success rates.

Another trend that can be seen is the difference in overall passing rates between charter and district schools. Charter schools, which on average hold fewer students and have a lower per-student budget, have an overall passing rate of 90.4% while district schools have an overall passing rate of only 53.7%. This trend can also be seen in the breakdown of spending ranges, with the lower bracket of spending per student between $550-$599, all of which are charter schools, have a higher overall passing rate in comparison to schools with higher spending per student.