Data Analysis Bootcamp – Week 4 Challenge

Pandas Challenge: Written Summary of Analysis

City Schools

The district contains 15 schools, 39,170 students and has a total budget of $24,649,428. This analysis includes a district summary of the total number of schools, total number of students, total budget, average math and reading scores, and the percentage of students with passing grades in reading, math, and both. Then the data is analyzed by school with metrics including the type of school, number of students enrolled with each school, the school's total budget and budget per student, average math and reading scores, and the percentage of students with passing grades in reading, math, and both. Additionally, each school is evaluated by grade level performance. Then each school's data is evaluated to show the highest and lowest performing schools overall, as well as performance based on per student spending, school size, and school type.

The results of this analysis show the highest performing school to be Cabrera High School with 91.33% of students passing overall. The lowest performing school to be Rodriguez High School with 52.99% of students passing overall. The analysis of performance based on spending per student indicates a negative correlation with schools that spent less per student having the highest performance. The analysis of performance by school size shows that smaller schools have the highest performance. The performance by school type analysis shows that charter schools have the highest performance. Based on this analysis, schools with smaller student population, less spending per student, and charter designation have the highest performance outcomes. Additional analysis needed include statistical significance evaluation on school size, spending per student, and charter designation and its effect on performance outcomes.