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Module 4 Assignmnent

PyCitySchools\_Analysis

Due December 23, 2024

Summary

In this analysis, we looked at 2 files containing data relating to education. This data set contained 39,170 students, male and female, from 15 different schools. We combined this data to analyze a sample of students from different schools and school types, to see if there were any pieces of information we could learn from the data.

Our goal was to break down the data to compare a student from a charter school versus a student from a district school. To achieve this, we evaluated average math and reading scores as well as the passing rates for these subjects. Additionally, we assessed budget spending per student and created a new data frame summarizing our calculations. By sorting the data, we identified the highest and lowest performing schools in terms of passing percentage, as well as passing rates by grade. We then categorized the various data into bins to analyze the student’s success rates based on budget per student. Finally, we compared the price between district and charter school students, to analyze their scores and passing rates.

When drawing conclusions from these data frames, the clearest conclusion that steps out is our final calculations. Charter schools have a drastically higher success rate in both math and reading, and they have a significantly higher overall passing rate. Also, I thought it was interesting that higher spending per student did not seem to cause higher scores or passing rates. In fact, the schools with the lowest budget per student (<$585) had greater scores across the board. It would be interesting to take a closer look to see if we can spot any reason why that might have been the case.

Lastly, another important analysis that stood out to me was comparing the school size to the overall passing rate. Of the 15 schools we analyzed, every school above 2,500 students had below 60 percent overall passing rates. Contrasting that to the schools under 2,500 students who all had overall passing rates of 89 or above. That is a truly significant difference and should be an idea we should pursue looking into further. Perhaps decreasing the school sizes could increase the success rates of high school students.