GW Data Analytics Boot Camp

**Module 4 Written Report**

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**Summary of Analysis:**

The analysis was conducted as part of the Module 4 Challenge, aimed to evaluate school performance using Pandas DataFrames for strategic decision-making regarding future school budgets and priorities. The analysis focused on assessing various metrics such as average math and reading scores, percentage of students passing math and reading, and overall passing rate across different schools in the district. Additionally, the analysis categorized schools based on spending per student, school size, and school type to identify trends in performance across different parameters.

**Conclusions and Comparisons:**

1. **Impact of School Spending on Performance:**

One significant conclusion drawn from the analysis is the apparent correlation between school spending per student and academic performance. Schools with higher spending per student tend to demonstrate higher average math and reading scores, as well as higher percentages of students passing both math and reading. Conversely, schools with lower spending per student exhibit lower academic performance metrics. This finding suggests that allocating adequate resources to schools is essential for enhancing student outcomes and overall academic achievement.

1. **Influence of School Size on Academic Achievement:**

Another notable observation is the influence of school size on academic achievement. Smaller schools, defined as those with fewer than 1000 students, generally outperform larger schools in terms of average math and reading scores, as well as the percentage of students passing math and reading. This implies that smaller schools may offer a more conducive learning environment, allowing for more personalized attention and support for students. As a result, policymakers may need to consider the benefits of maintaining smaller school sizes when making decisions about school infrastructure and capacity planning.

These conclusions underscore the importance of considering factors such as funding allocation and school size when formulating education policies and allocating resources. By understanding the factors that impact academic performance, policymakers can make informed decisions to improve educational outcomes and support the success of all students in the district.