**Summary of Analysis**

In this analysis, we examined student performance across various schools in a citywide district, with a focus on math and reading scores. The data included student-level information on their respective scores, schools they attend, and school-level data such as total budget and school type (Charter or District). We calculated key metrics such as average math and reading scores, percentages of students passing these subjects, and overall passing rates (students passing both math and reading). Additionally, we evaluated school performance based on several factors: per-student spending, school size, and school type. The goal was to identify trends that could inform strategic decisions regarding school funding and priorities.

**Key Findings**

**1. School Type Performance Comparison**

* **Charter schools outperformed district schools** in all key performance metrics.
* Charter schools had an **average math score of 83.47** and an **average reading score of 83.90**, while district schools had an **average math score of 76.96** and an **average reading score of 80.97**.
* Furthermore, **93.62% of students in charter schools passed math**, compared to 66.55% in district schools. Similarly, **96.59% of charter school students passed reading**, significantly higher than the **80.80% in district schools**.
* Overall, charter schools had a much higher **overall passing rate of 90.43%**, compared to district schools’ **53.67%**.

**2. Impact of School Spending on Performance**

* Schools with **lower per-student spending** (below $585) performed better than those with higher spending.
* The **average math score in schools spending less than $585 per student** was 83.46, while schools spending between **$645 and $680** per student had an average math score of only 77.04.
* This trend was also seen in reading scores, with lower-spending schools achieving an **average reading score of 83.93**, compared to **81.62** in the highest spending range.
* Interestingly, **schools with moderate spending ranges** (between $585 and $630) performed best in both subjects, indicating that simply increasing spending does not directly correlate to improved student outcomes.

**Conclusions**

1. **Charter schools are consistently outperforming district schools** across all metrics. Given this finding, decision-makers should investigate the specific practices employed by charter schools to determine if they could be implemented district-wide. Increased support and resources for district schools might help close the performance gap.
2. **More spending does not guarantee better performance.** The data shows that schools with the highest spending per student actually had lower overall performance compared to schools in lower and moderate spending ranges. This suggests that factors other than budget, such as teaching quality, curriculum, and school management, might have a more significant impact on student outcomes. District leaders should explore non-financial strategies to enhance student achievement.