**Written Report**

**Analysis Summary**

The analysis evaluates key performance metrics for a school district, examining student success rates in math and reading. The dataset includes information on individual schools, budgets, grade-level scores, and overall performance.

The study breaks down the schools' performances into several categories:

1. **Highest and Lowest Performing Schools**: The schools were ranked by their overall passing percentage, identifying the top and bottom performers.
2. **Scores by Grade Level**: Average math and reading scores for each grade (9th through 12th) were calculated for each school.
3. **Scores by Spending Ranges**: Schools were grouped into spending ranges to investigate the correlation between per-student spending and performance.
4. **Scores by School Size**: Performance metrics were categorized based on school size.
5. **Scores by School Type**: Public and charter schools were compared based on average scores and passing percentages.

**Conclusions and Comparisons**

**1. Correlation Between Per-Student Spending and Performance**

Analysis of spending ranges revealed that higher spending per student does not always correlate with better student performance. Schools in the lowest spending range (<$585 per student) demonstrated comparable performance to those in the mid-range ($630-$645). However, schools with the highest spending ($645-$680) showed reduced passing percentages, indicating diminishing returns on investment in certain cases.

* **Observation**: Increased spending does not guarantee better outcomes, suggesting that factors such as teaching quality and resource allocation are critical.

**2. Charter Schools Outperform Public Schools**

When grouped by school type, charter schools consistently outperformed public schools in all key metrics, including average math and reading scores, and overall passing percentages. Charter schools had higher % Passing Math (94%) compared to public schools (76%), and their % Overall Passing was also significantly higher (91% vs. 65%).

* **Observation**: The smaller size and more tailored programs of charter schools may contribute to their superior performance compared to public schools.