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**City Schools Data Report**

As the Chief Data Scientist for the city’s school district, I conducted a detailed analysis of standardized test scores across our schools, examining metrics such as student population size and performance differences between charter and district schools. This report highlights key findings from the data and offers insights into performance trends across the district.

The analysis revealed that our district includes 15 schools, serving a total of 39,170 students. The average math score district-wide is 78.99, with reading scores slightly higher at 81.88. About 75% of students passed math, while over 85% passed reading, resulting in an overall district passing rate of more than 65% for both subjects.

While I initially expected to find a positive correlation between higher per-student spending and better test scores, the data didn't quite support this theory. Instead, we found that schools with both the lowest and highest per-student spending achieved the highest test scores, while schools in the mid-spending range performed significantly lower. A closer look revealed that many of the low- and high-budget schools were actually charter schools, which had a student passing rate of over 90% in both math and reading, compared to less than 54% for district schools. This suggests that students may be more likely to succeed in alternative learning environments like charter schools regardless of per student spending.

The data also indicates a relationship between school size and passing rates. Medium- and small-sized schools (fewer than 2,000 students) show a passing rate close to 90% in both subjects, while large schools (more than 2,000 students) report an average passing rate of less than 60%. This substantial difference suggests a correlation between smaller student populations and improved academic outcomes.

In summary, the analysis points to both alternative education and school size as significant factors influencing student success, with smaller schools and alternative learning models providing an advantage in academic performance.