We looked at various data and assembled them into several different data frames to see if we can draw any correlation between the budget for the school and the percentage of students who passed math test, reading test, or both, along with other factors such as the size of the school and the type of school.

Analyzing the “Scores by School Spending” data frame, it was clear that the schools with higher budget per student had the lower percentage of students who had passed both math and reading tests. For example, Rodriguez high school had the school budget of $637 per student, which was at the higher end of the budget range but had the lowest percentage of students who passed both math and the reading tests (52.99%). On the other hand, Cabrera high school, who had the school budget of $582 per student, which was relatively lower than others, showed the highest percentage of students who passed both math and reading tests (91.33%). More specifically, when looking at the data frame, “spending\_summary,” it showed that the more school spent on each student, the lower percentage of students were passing both the math and the reading tests. The budget spending less than $585 showed 90.37% of overall passing rate, and as the budget range went higher, the percentage of overall passing decreased.

When we compared the scores by school size, the small and medium sized schools outperformed the large sized school. The overall percentages of passing both math and reading tests for small and medium sized schools were 89.88% and 90.62%, respectively, whereas for the large sized schools was only 58.29%.

Lastly, the charter type of schools had much higher percentage of overall passing rate for both math and reading tests (90.43%), while the district type of schools showed a much lower rate of 53.67%. In addition, it was interesting to note that the math scores were generally lower than the reading scores overall.

In conclusion, the less spending on each student, the small and medium size of the school, and the charter type of schools had higher percentage of overall passing rate for both math and reading tests.