The objective of this analysis is to examine the academic performance of schools based on the school types (government or individual), school size (small, medium, or large) and the budget. We aim to understand how different school types perform in terms of Maths and Reading scores as well as the parentage of students passing in these subjects.

The Data used for this analysis is sources from two sets of data which contained student information such as maths score, reading score and number of students and school information such as school type, budget, and school size.

We used ‘groupby()’ , ‘mean()’ , ‘bins()’ , ‘count()’ and ‘sort()’ functions to analyse the data.

Results:

The Average Maths and Reading Scores for Government schools are 69.83 and 69.68.

The Average Maths and Reading Scores for Independent schools are 71.37 and 70.71.

The Overall Passing rate for Government Schools is 70.79.

The Overall Passing rate for Individual Schools is 76.97.

Conclusions:

Based on the analysis, although the average maths and english score for Individually funded schools are nearly identical, independently funded schools exhibit a higher overall passing rate than government-funded schools.

The analysis further indicates that smaller schools generally achieve higher average scores than medium and large-sized schools and have a significantly higher overall passing rate.

It was also noteworthy that the budget each school received did not have a significant impact on the average math and reading scores, however, it did have a significant impact on the overall passing rate. The ideal spending per student was found to be between $585 - $630. The higher spending budget resulted in a significant drop in overall passing rate.

This analysis provides valuable insights into the performance differences between school types and can be used to inform educational policies and interventions aimed at improving academic outcomes across different school settings.