School Analysis Report

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The analysis performed on the two data sets provided, “schools\_complete.csv” and “students\_complete.csv” included a merging of the two data sets into one and drawing data from this new set to arrive at the summary information presented in the analysis.

# District Summary

Over the 15 schools in the district and nearly 40,000 students, the total budget was $24.6 billion. The pass rate for Math was 75% while the pass rate for Reading 85%. It is concerning, then, that the overall pass rate for students who passed both Math and Reading did not exceed 65%.

# School Summaries

Schools in the districts spent between $573 and $655 on each student, according to their budgets divided by the number of students. Charter schools have a much higher overall pass rate than their counterparts, the former meeting or exceeding 89% and the latter’s meeting or exceeding only 52%

## Highest Performing schools (by % overall passing)

The highest performing schools, in descending order, are: Cabrera, Thomas, Griffin, Wilson, and Pena. These schools are all Charter types averaging no less than a 90% pass rate between them all.

## Bottom Performing Schools (by % Overall Passing)

The bottom performing schools, in ascending order, are: Rodriguez, Figueroa, Huang, Hernandez, and Johnson. The worst performing of these schools (Rodriquez) achieved an overall pass rate that could not quite meet 53%. All of these schools are District type.

### math scores (by grade)

The Math scores, when sorted by School and Grade, are fairly consistent across the course of the 4 years that the students spend at the school’s they’re in, regardless of type. This means that all grades are averaging roughly the same grade-point and do not seem to vary as the student ages.

### reading scores (by grade)

The Reading scores, when sorted by School and Grade, are fairly consistent across the course of the 4 years that the students spend at the school’s they’re in, regardless of type. This means that all grades are averaging roughly the same grade-point and do not seem to vary as the student ages.

### scores by school spending

According to the analysis spending more money per-student has an inverse relationship to their overall pass-rate, and indeed the pass-rate of students in each subject. Every category shows a decline in the scores and pass-rates as the spending (per-student) increase.

### scores by school size

The pass-rate of a school is affected by the size of the school itself. The three categories analyzed indicated that Small (<1000 students) and Medium (1000-2000 students) schools show very little difference in their overall passing rate. This changes when a Large (2000-5000 students) school is considered. The pass-rates drop significantly.

### scores by scool type

Across school types, Charter Schools out-perform District schools significantly, boasting an overall pass-rate of 90% against 53%.

#### Overservations:

1. While Charter schools, on average seem to include fewer total students than District schools, they significantly out-perform their counterparts to produce students that have a more successful education, in respect to the subjects that are taught.
2. Charter schools, on average also spend less money per-capita to produce these results. District schools spend more money on their students and achieve lower results. This is the reason for the inverse-relationship between amount spent per-student and their pass-rate. Charter Schools make up the majority of the schools that spend less and this end up in these categories. This raises the pass rate of the students in these categories. As the per-student spending increase we can deduce that District Schools make up a larger portion of the data in those higher categories, skewing the pass-rate downward.