District-Wide Standardized Testing Analysis

Prepared by

Chief Data Scientist

**School Performance**

**General Statistics**

|  | **Total Schools** | **Total Students** | **Total Budget** | **Average Math Score** | **Average Reading Score** | **% Passing Math** | **% Passing Reading** | **% Overall Passing** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **0** | 15 | 39,170 | $24,649,428.00 | 78.98537 | 81.87784 | 74.98085 | 85.80546 | 65.17233 |

**Findings**

While district test score averages are quite high, some students performed poorly in standardized testing. Overall passing percentage provides a better snapshot of how low scores can influence school performance levels. The spending summary data frame shows no relationship or correlation between higher budget spending per student and school performance. For instance, only 53% of students passed in schools with spending ranges between $645 and $680 (the highest identified spending range). In comparison, the spending ranges of 90% of students who passed math and reading were within the lowest per student budget range of <$585. Data shows that in this district per student budget and spending does not affect school performance. It is likely, however, that schools with the smallest allocated budget may affect student academic success. The top three schools with the smallest budget are Pena High School, Holden High School, and Griffin High School. Holden High School has the smallest budget ($248,087), whereas the other schools have budgets in the millions of dollars.

. Top five schools with the highest overall passing percentage rate are Cabrera High School, Thomas High School, Griffin High School, Wilson High School, and Pena High School. Despite Pena High School having the smallest budget, it has scored relatively high on both the reading and math standardized testing.

The variation in grade average reading scores is minimal, whereas the variation in grade average math scores is greater, suggesting that math proficiency and individual learning styles impact math testing scores. Additionally, there isn't much variance in per-student spending an and budget amongst schools. Small to medium sized schools have high overall passing percentages, while large sized schools exhibit lower overall passing percentage. This makes sense given that smaller size of students in classrooms allow for better individualized learning. Charter schools score higher than district.

**Limitations**

Aggregate testing data does not include testing timeframe preventing the opportunity to identify testing patterns over time. While the district may want to focus on just reading and math scores, this leaves out other important standardized tests that may have been taken (i.e., science and social studies) which more accurately reflect overall passing scores in general. This also could reflect how likely students in the district are to succeed in all 4 subject areas and even display high student success rates in a particular subject area, allowing the district to allocate more resources and time to address school performance concerns.

**Recommendations**

For next year’s analysis, standardized testing scores should provide student-specific data that compiles and follows a student’s school performance from 9th to 12th grade to identify possible upward or downwards trends. Particularly, for the students that scored low in one or both subjects. Identifying and comparing per student budgets and students that scored low could identify a potential correlation. Minimum reading and math scores should also be paid closer attention.