**PyCity School Analysis**

This report has been generated based on the data collected from Schools\_complete.csv and Students\_complete.csv

My Analysis are as follows:

The analysis indicated that Charter schools outperform District School in terms of average math and reading score, as well as the percentage of student passing both subjects. (refer to Data 1)

The analysis also suggests that contrary to expectation higher per student spending in district school does not consistently lead to better academic outcomes. (refer to Data 2)

District Summary:

1. Total Schools:

• There are a total of 15 schools in the district.

2. Total Students:

• The district has a student population of 39,170.

3. Total Budget:

• The combined budget for all schools in the district is $24,649,428.00.

4. Average Math Score:

• The average math score across all students in the district is 78.99%.

5. Average Reading Score:

• The average reading score across all students in the district is 81.88%.

6. Percentage Passing Math:

• Approximately 74.98% of students in the district have passed the math assessment.

7. Percentage Passing Reading:

• Approximately 85.81% of students in the district have passed the reading assessment.

8. Overall Passing Percentage:

• The overall passing percentage, considering both math and reading, is approximately 65.17%.

**DATA 1 :**

Highest-Performing Schools % Overall Passing

Top 5 Highest were Charter school Types

School Type Total Students % Overall Passing

Charter 1858 91.33476857

Charter 1635 90.94801223

Charter 1468 90.59945504

Charter 2283 90.5825668

Charter 962 90.54054054

Charter 1800 90.33333333

Charter 1761 89.89210676

Bottom Performing Schools % Overall passing

The Top 5 lowest were District school Type

School Type Total Students % Overall Passing

District 3999 52.98824706

District 2949 53.20447609

District 2917 53.51388413

District 4635 53.52750809

District 4761 53.53917244

District 2739 54.28988682

District 4976 54.64228296

**Data 2 :**

In this report reflection of per student budget can be seen.

School Type Total Students Total School Budget Per Student Budget Spending Ranges (Per Student)

District 4976 $3,124,928.00 $628.00 $585-630

Charter 1858 $1,081,356.00 $582.00 <$585

District 2949 $1,884,411.00 $639.00 $630-645

District 2739 $1,763,916.00 $644.00 $630-645

Charter 1468 $917,500.00 $625.00 $585-630

District 4635 $3,022,020.00 $652.00 $645-680

Charter 427 $248,087.00 $581.00 <$585

District 2917 $1,910,635.00 $655.00 $645-680

District 4761 $3,094,650.00 $650.00 $645-680

Charter 962 $585,858.00 $609.00 $585-630

District 3999 $2,547,363.00 $637.00 $630-645

Charter 1761 $1,056,600.00 $600.00 $585-630

Charter 1635 $1,043,130.00 $638.00 $630-645

Charter 2283 $1,319,574.00 $578.00 <$585

**Scores By School Type Summary**

Charter schools demonstrate significantly higher average scores in both math and reading compared to district schools. Moreover, charter schools exhibit notably higher percentages of students passing both math and reading assessments, resulting in a substantially higher overall passing percentage. This suggests a potential difference in educational approaches and outcomes between charter and district schools.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| school type | Average Math Score | Average Reading Score | % Passing Math | % Passing Reading | % Overall Passing |
| charter | 83.47385187 | 83.89642074 | 93.62083004 | 96.58648927 | 90.43224369 |
| district | 76.95673307 | 80.96663633 | 66.54845257 | 80.79906211 | 53.67220823 |
|  |  |  |  |  |  |

**Scores by School Size Summary**

* Charter schools, on average, outperform district schools in both math and reading scores, as well as in the percentage of students passing both subjects.
* Charter schools exhibit higher overall passing percentages, indicating a better overall academic performance.
* District schools have larger student populations, but this does not consistently translate to higher academic achievement.
* Smaller and medium-sized schools (both charter and district) tend to have higher overall passing percentages.

**Scores by School Spending**

1. **<$585:**
   * Charter schools with lower per-student budgets demonstrate strong academic performance across all metrics.
2. **$585-630:**
   * Both charter and district schools fall into this range, with varied performance.
   * Charter schools tend to have higher average scores and passing percentages.
3. **$630-645:**
   * District schools in this range show moderate academic performance.
   * Charter schools exhibit higher average scores and passing percentages.
4. **$645-680:**
   * District schools in this range have lower passing percentages.
   * Charter schools maintain higher academic performance.

In conclusion, this analysis provides a comprehensive understanding of the factors influencing academic performance in PyCity schools. It emphasizes the need for a nuanced approach to education, considering not only budget allocations but also the effectiveness of different school types and sizes.