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PyCity Schools Analysis

Part1: District Summary

1. **Number of Schools**: 15
2. **Total Number of Students**: 39,170
3. **Average Math Score**: 78.99

The average math score across all students is about 79. This is a fairly decent score but suggests room for improvement, especially considering the percentage of students passing math is 74.98%, which indicates some students are struggling.

1. **Average Reading Score**: 81.88

The average reading score is higher than math, at nearly 82. This could reflect a stronger overall performance in reading than in math, suggesting that the curriculum or instructional methods in reading may be more effective or students may be more engaged with reading content.

1. **Passing Percentages**

* **Math Passing Percentage**: 74.98%

About 75% of students are meeting the proficiency standard in math. This indicates that while a majority of students are passing, a significant portion is either below proficiency or struggling. It might be helpful to focus on improving math outcomes, as there is a gap between the average score (78.99) and the passing threshold.

* **Reading Passing Percentage**: 85.81%

In contrast, 85.81% of students are passing reading. This is a stronger passing rate than math, indicating that reading proficiency is higher across the student body. While it's still a positive result, some improvement could be aimed at raising those who are near the passing mark.

* **Overall Passing Rate**: 65.17%

This metric suggests that roughly 65% of students are passing both math and reading. This is the combined percentage of students who are proficient in both subjects, and it's lower than the passing percentages in either individual subject (math and reading). This points to a significant number of students who are struggling in one or both subjects.

The lower overall passing rate could be a concern for the school district, indicating that there might be students who are proficient in one subject but not both, or that intervention strategies for improving student performance in both areas are needed.

1. **Total Budget**: $24,649,428

With 39,170 students and 15 schools, this budget averages to about **$628 per student**. It's important to assess whether this funding is being used effectively, especially in light of the performance data. Schools may want to focus on improving the effectiveness of their educational programs and exploring how funds could be better allocated to support interventions or programs that specifically address areas of concern.

Part2: School Summary:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| School Name | School  Count | School Type | Total  School budget | Per Student Budget | Avg Math Score | Avg Reading Score | Passing  Math  % | Passing Reading  % | Overall Passing % |
| Bailey High School | 4976 | District | $ 3124928 | $ 628 | 77.04 | 81.03 | 66.68 | 81.93 | 54.64 |
| Johnson High School | 4761 | District | $ 1081356 | $ 582 | 83.06 | 83.97 | 94.13 | 97.03 | 91.33 |
| Hernandez High School | 4635 | District | $ 1884411 | $ 639 | 76.71 | 81.15 | 65.98 | 80.73 | 53.20 |
| Rodriguez High School | 3999 | District | $ 1763916 | $ 644 | 77.10 | 80.74 | 68.30 | 79.29 | 54.28 |
| Figueroa High School | 2949 | District | $ 917500 | $ 625 | 83.35 | 83.81 | 93.39 | 97.13 | 90.59 |
| Huang High School | 2917 | District | $ 3022020 | $ 652 | 77.28 | 80.93 | 66.75 | 80.86 | 53.52 |
| Ford High School | 2739 | District | $ 248087 | $ 581 | 83.80 | 83.81 | 92.50 | 96.25 | 89.22 |
| Wilson High School | 2283 | Charter | $ 1910635 | $ 655 | 76.62 | 81.18 | 65.68 | 81.31 | 53.51 |
| Cabrera High School | 1858 | Charter | $ 3094650 | $ 650 | 77.07 | 80.96 | 66.05 | 81.22 | 53.53 |
| Wright High School | 1800 | Charter | $ 585858 | $ 609 | 83.83 | 84.04 | 94.59 | 95.94 | 90.54 |
| Shelton High School | 1761 | Charter | $ 2547363 | $ 637 | 76.84 | 80.74 | 66.36 | 80.22 | 52.98 |
| Thomas High School | 1635 | Charter | $ 1056600 | $ 600 | 83.35 | 83.72 | 93.86 | 95.85 | 89.89 |
| Griffin High School | 1468 | Charter | $ 1043130 | $ 638 | 83.41 | 83.84 | 93.27 | 97.30 | 90.94 |
| Pena High School | 962 | Charter | $ 1319574 | $ 578 | 83.27 | 83.98 | 93.86 | 96.53 | 90.58 |
| Holden High School | 427 | Charter | $ 1049400 | $ 583 | 83.68 | 83.95 | 93.33 | 96.61 | 90.33 |

**School Budget & Spending Per Capita:**

* **District Schools** generally have larger budgets, with schools like **Bailey High School** ($3,124,928) and **Huang High School** ($3,022,020) at the higher end.
* **Charter Schools** tend to have smaller budgets on average, with **Pena High School** ($1,319,574) and **Holden High School** ($1,049,400) among the lower end, though some charter schools like **Wilson High School** ($1,910,635) and **Cabrera High School** ($3,094,650) have comparatively larger budgets.
* On a per-student basis, most schools fall between **$578** and **$655**, with **Holden High School** (Charter) at the lowest end ($578) and **Huang High School** (District) at the highest ($652).

**Performance Data:**

* **Pass Rates in Math & Reading**:

**District Schools** tend to have more variability in their pass rates, with some schools performing well (e.g., **Johnson High School** with **94.13%** in Math and **97.03%** in Reading) and others showing lower scores (e.g., **Bailey High School** with **66.68%** in Math and **81.93%** in Reading).

**Charter Schools**, on the other hand, typically show high performance across the board, especially in **Math** and **Reading**. Schools like **Wright High School** (Charter) achieve high pass rates (**94.59%** in Math and **95.94%** in Reading), with many others following closely behind, such as **Griffin High School** (**93.27%** in Math and **97.30%** in Reading).

* **Math and Reading Scores**:

**Math** scores across the board generally range between **76%** and **84%**, with **Johnson High School** standing out with the highest score (**83.06%**).

**Reading** scores also vary, generally ranging from **80%** to **84%**, with **Wright High School** again standing out (**84.04%).**

Part 3 :

**Scores by School Spending:**

The data shows that schools with higher spending per student generally perform better in both math and reading scores, as well as overall passing rates. Specifically:

* Schools spending less than $585 per student have the highest average scores and passing percentages in all categories.
* As spending increases, both the average math and reading scores, as well as the passing rates, tend to decrease.
* Schools in the $630-645 range and above show lower performance metrics in comparison, with a significant drop in overall passing percentages.

In summary, there seems to be an inverse relationship between spending per student and academic performance, with lower spending correlating with better outcomes.

**Scores by School Size:**

The data suggests that smaller and medium-sized schools tend to outperform large schools in all categories:

* **Small schools (<1000 students)** have the highest average scores in both math and reading, as well as the highest passing rates.
* **Medium schools (1000-2000 students)** also perform very well, with only slightly lower scores and passing rates compared to small schools.
* **Large schools (2000-5000 students)** show significantly lower performance across the board, with notably lower passing rates and average scores.

In conclusion, smaller schools, particularly those with fewer than 1000 students, seem to have a clear advantage in terms of academic achievement and passing rates.

**Scores by School Type:**

The data indicates that **charter schools** outperform **district schools** across all academic measures:

* **Charter schools** have higher average scores in both math and reading, as well as significantly higher passing rates and overall performance.
* **District schools** show lower average scores and passing rates, with a particularly large gap in the percentage of students passing math and overall passing.

In conclusion, charter schools appear to offer better academic outcomes compared to district schools in this data set.