PyCity Schools Analysis
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DATA-PT-EAST-APRIL-041524-MTTH

This analysis compared 15 different schools across various metrics, such as school type, number of students, budget, and student performance. This analysis was very useful to see how each school was performing individually and to show how the data provided can lead us to several conclusions. The first conclusion is that Charter schools produce higher overall passing scores, but also have considerably fewer students attending.

Highest-Performing Schools (by % Overall Passing)

```
# Sort the schools by `% Overall Passing` in descending order and display the top 5 rows.
top_schools = per_school_summary.sort_values(by="% Overall Passing", ascending=False)
top_schools.head(5)
```

school_name	School Type	Total Students	Total School Budget	Per Student Budget	Average Math Score	Average Reading Score	% Passing Math	% Passing Reading	% Overall Passing
Cabrera High School	Charter	1858	$1,081,356.00	$582.00	83.061895	83.975780	94.133477	97.039828	91.334769
Thomas High School	Charter	1635	$1,043,130.00	$638.00	83.418349	83.848930	93.272171	97.308869	90.948012
Griffin High School	Charter	1468	$917,500.00	$625.00	83.351499	83.816757	93.392371	97.138965	90.599455
Wilson High School	Charter	2283	$1,319,574.00	$578.00	83.274201	83.989488	93.867718	96.539641	90.582567
Pena High School	Charter	962	$585,858.00	$609.00	83.839917	84.044699	94.594595	95.945946	90.540541

Bottom Performing Schools (By % Overall Passing)

```
# Sort the schools by `% Overall Passing` in ascending order and display the top 5 rows.
bottom_schools = per_school_summary.sort_values(by="% Overall Passing", ascending=True)
bottom_schools.head(5)
```

school_name	School Type	Total Students	Total School Budget	Per Student Budget	Average Math Score	Average Reading Score	% Passing Math	% Passing Reading	% Overall Passing
Rodriguez High School	District	3999	$2,547,363.00	$637.00	76.842711	80.744686	66.366592	80.220055	52.988247
Figueroa High School	District	2949	$1,884,411.00	$639.00	76.711767	81.158020	65.988471	80.739234	53.204476
Huang High School	District	2917	$1,910,635.00	$655.00	76.629414	81.182722	65.683922	81.316421	53.513884
Hernandez High School	District	4635	$3,022,020.00	$652.00	77.289752	80.934412	66.752967	80.862999	53.527508
Johnson High School	District	4761	$3,094,650.00	$650.00	77.072464	80.966394	66.057551	81.222432	53.539172

Another conclusion we can draw is that Districts' need further analysis on "% Passing Math." The percentage compared to the "Average Math Score" seems too low. Leading me to believe there could be a large number of outliers influencing this figure.

School Type	Average Math Score	Average Reading Score	% Passing Math	% Passing Reading	% Overall Passing
Charter	83.473852	83.896421	93.620830	96.586489	90.432244
District	76.956733	80.966636	66.548453	80.799062	53.672208

This overall data analysis would be very useful to school boards or people making decisions on yearly budget. Performance of schools is always important and we should always strive for improvement to better educate the next generation.