

You must include a written description of at least two observable trends based on the data.

### Trend 1:

*Table 1: Scores by School Type*

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

A notable trend in this dataset is reflected in the “Scores by School Type” table above. Within this dataset, charter schools outperform district schools in average math scores, average reading scores, and averaged calculated measures of the percentage of students passing.

These results are also reflected in the sort exercises below; by a measure of the percentage of students passing both math and reading, the five top-performing schools were charter schools, and the five bottom-performing schools were district schools.

*Table 2: Top Performing Schools (By % Overall Passing)*

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

*Table 3: Bottom Performing Schools (By % Overall Passing)*

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

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Without further analysis, it is difficult to parse out what differences between the two types of schools could correlate with their respective scores and passing percentages. From a cursory look at the tables above, there is a much more drastic difference in the average school size of the top performers when compared to the bottom performers as opposed to school budget per student. This brings me to the second notable trend.

## **Trend 2:**

*Table 4: Scores by School Size*

	Average Math Score	Average Reading Score	% Passing Math	% Passing Reading	% Overall Passing
School Size					
Small (<1000)	83.821598	83.929843	93.550225	96.099437	89.883853
Medium (1000-2000)	83.374684	83.864438	93.599695	96.790680	90.621535
Large (2000-5000)	77.746417	81.344493	69.963361	82.766634	58.286003

As I touched upon in the first trend, you can observe in the table above how performance—measured by math scores and reading scores—differs when binned into school size categories. Small and medium-size schools appear to perform similarly, whereas large schools perform drastically worse when looking at the percentage of students passing. It appears that math in particular may be a sticking point for large schools, however further investigation would be needed to better understand what is happening behind this data and visualize the distributions of student scores for all these school sizes.