

- Analysis

We analyzed and studied many city school variables during this project, evaluating behaviors and results to anticipate future decisions. We analyzed 15 different schools and more than 39.000 students classified by grade, budget, performance, and size, creating different leaderboards that helped us identify trends.

- Based on the leaderboard of the Highest-Performing Schools, we could conclude that all the schools with the better results are charter schools, while the ones with the lowest are District schools.

Highest-Performing Schools (by % Overall Passing)

```
[182]: # 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).head(5)

top_schools.head(5)
```

	School Type	Total Students	Total School Budget	Per Student Budget	Average Math Score	Average Reading	% Passing Math	% Passing Reading	% Overall Passing
school_name									
Cabrera High School	Charter	1858	1081356	582.0	1749	1803	94.133477	97.039828	91.334769
Thomas High School	Charter	1635	1043130	638.0	1525	1591	93.272171	97.308869	90.948012
Griffin High School	Charter	1468	917500	625.0	1371	1426	93.392371	97.138965	90.599455
Wilson High School	Charter	2283	1319574	578.0	2143	2204	93.867718	96.539641	90.582567
Pena High School	Charter	962	585858	609.0	910	923	94.594595	95.945946	90.540541

Bottom Performing Schools (By % Overall Passing)

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[189]: bottom_schools = per_school_summary.sort_values(by="% Overall Passing", ascending=True).head(5)

bottom_schools.head(5)
```

	School Type	Total Students	Total School Budget	Per Student Budget	Average Math Score	Average Reading	% Passing Math	% Passing Reading	% Overall Passing
school_name									
Rodriguez High School	District	3999	2547363	637.0	2654	3208	66.366592	80.220055	52.988247
Figueroa High School	District	2949	1884411	639.0	1946	2381	65.988471	80.739234	53.204476
Huang High School	District	2917	1910635	655.0	1916	2372	65.683922	81.316421	53.513884
Hernandez High School	District	4635	3022020	652.0	3094	3748	66.752967	80.862999	53.527508
Johnson High School	District	4761	3094650	650.0	3145	3867	66.057551	81.222432	53.539172

- The spending Ranges per student conclude that the overall results on their exams are not proportional to the budget invested per student, as the table below confirms.

[0]:

	Average Math Score	Average Reading Score	% Passing Math\t	% Passing Reading	% Overall Passing
Spending Ranges (Per Student)					
<\$585	1491.750000	1539.25	93.460096	96.610877	90.369459
\$585-630	1813.000000	2028.50	87.133538	92.718205	81.418596
\$630-645	1999.000000	2338.00	73.484209	84.391793	62.857656
\$645-680	2718.333333	3329.00	66.164813	81.133951	53.526855