Module 4 Challenge

In this assignment we performed an analysis of a school district's standardized test data. Our aim in this project is to help the school board and mayor make strategic decisions regarding future school budgets and priorities.

After performing our analysis, we have some insights we might want to share with our colleagues:

- All our top performing schools were charters and all our bottom performing schools were District.

Top Performing Schools

school_name	School Type	Total Students	Total Budget	Budget per Student	Average Math Score	Average Reading Score	% Passing Math	% Passing Reading	% Passing Overall
Cabrera High School	Charter	1858	1081356	582.0	83.061895	83.975780	94.133477	97.039828	95.586652
Thomas High School	Charter	1635	1043130	638.0	83.418349	83.848930	93.272171	97.308869	95.290520
Pena High School	Charter	962	585858	609.0	83.839917	84.044699	94.594595	95.945946	95.270270
Griffin High School	Charter	1468	917500	625.0	83.351499	83.816757	93.392371	97.138965	95.265668
Wilson High School	Charter	2283	1319574	578.0	83.274201	83.989488	93.867718	96.539641	95.203679

Bottom Performing Schools

school_name	School Type	Total Students	Total Budget	Budget per Student	Average Math Score	Average Reading Score	% Passing Math	% Passing Reading	% Passing Overall
Rodriguez High School	District	3999	2547363	637.0	76.842711	80.744686	66.366592	80.220055	73.293323
Figueroa High School	District	2949	1884411	639.0	76.711767	81.158020	65.988471	80.739234	73.363852
Huang High School	District	2917	1910635	655.0	76.629414	81.182722	65.683922	81.316421	73.500171
Johnson High School	District	4761	3094650	650.0	77.072464	80.966394	66.057551	81.222432	73.639992
Ford High School	District	2739	1763916	644.0	77.102592	80.746258	68.309602	79.299014	73.804308

Performance by Type

School Type	Average Math Score	Average Reading Score	% Passing Math	% Passing Reading	% Passing Both
Charter	83.473852	83.896421	93.620830	96.586489	95.103660
District	76.956733	80.966636	66.548453	80.799062	73.673757

- Our data also suggests that larger schools had lower performance, but the difference between small and medium schools seems negligible.

Scores by School Size

School Size	Average Math Score	Average Reading Score	% Passing Math	% Passing Reading	% Passing Both
Small (<1000)	83.821598	83.929843	93.550225	96.099437	94.824831
Medium (1000-2000)	83.374684	83.864438	93.599695	96.790680	95.195187
Large (2000-5000)	77.746417	81.344493	69.963361	82.766634	76.364998