

Education Analysis – School Data Analysis with Pandas

Executive Report

Caio di Felice Cunha

Dear Executive Board,

I hope this email finds you well.

Below you will find valuable insights about our company.

For more details, please visit our [Power BI Dashboard](#)

Conclusions:

When carrying out the analysis, it was concluded that the annual budget influences school performance, however, it is not a determining factor for raising the grade of students.

This becomes more evident when we analyze public and private schools, where public schools have a lower average grade, and a much lower approval rate, however, the annual budget is often equivalent to 3x the annual budget of a private school .

Analysis Summary

Were analyzed a total of:

- 15 schools of which 8 are private and 7 are public;
- 39,160 students;
- 24,649,428 in annual budget.

The overall math average was 78.98

While the overall writing average was 81.87

Taking into account that the average is 70, the number of people approved in the subjects are:

- 29,360 in math (74.97%);
- 33,600 in writing (85.80%);
- 25,518 approved in both subjects (65.16%)

	Total Schools	Total Students	Total Budget	Average Writing Grade	Average Math Score	% Writing Approval	% Math Approval	% Total Approval
0	15	39,160	\$24,649,428.00	81.875741	78.984934	85.801839	74.974464	65.163432

Among those approved in writing:

- 17,027 are female;
- 16,573 are male.

Among those approved in mathematics:

- 14,835 are female;
- 14,525 are male.

General analysis by school

	Type of School	Total Students	Total Budget	Budget Per Student	Average Writing Approval Grade	Average Mathematics Approval Grade	% Approved Writing	% Approved Math	% General Approved
School A	Public	2917	\$1,910,635.00	\$655.00	81.182722	76.629414	81.316421	65.683922	53.513884
School B	Public	2949	\$1,884,411.00	\$639.00	81.158020	76.711767	80.739234	65.988471	53.204476
School C	Private	1761	\$1,056,600.00	\$600.00	83.725724	83.359455	95.854628	93.867121	89.892107
School D	Public	4635	\$3,022,020.00	\$652.00	80.934412	77.289752	80.862999	66.752967	53.527508
School E	Private	1468	\$917,500.00	\$625.00	83.816757	83.351499	97.138965	93.392371	90.599455
School F	Private	2283	\$1,319,574.00	\$578.00	83.989488	83.274201	96.539641	93.867718	90.582567
School G	Private	1858	\$1,081,356.00	\$582.00	83.975780	83.061895	97.039828	94.133477	91.334769
School H	Public	4976	\$3,124,928.00	\$628.00	81.033963	77.048432	81.933280	66.680064	54.642283
School I	Private	427	\$248,087.00	\$581.00	83.814988	83.803279	96.252927	92.505855	89.227166
School J	Private	962	\$585,858.00	\$609.00	84.044699	83.839917	95.945946	94.594595	90.540541
School K	Private	1800	\$1,049,400.00	\$583.00	83.955000	83.682222	96.611111	93.333333	90.333333
School L	Public	3999	\$2,547,363.00	\$637.00	80.744686	76.842711	80.220055	66.366592	52.988247
School M	Public	4761	\$3,094,650.00	\$650.00	80.966394	77.072464	81.222432	66.057551	53.539172
School N	Public	2739	\$1,763,916.00	\$644.00	80.746258	77.102592	79.299014	68.309602	54.289887
School O	Private	1625	\$1,043,130.00	\$641.93	83.810462	83.435077	97.292308	93.230769	90.892308

General Analysis by Grade

	Sixth Grade	Seventh Grade	Eighth Grade	Ninth Grade
Name_School				
School A	77.027251	75.908735	76.446602	77.225641
School B	76.403037	76.539974	76.884344	77.151369
School C	83.420755	82.917411	83.383495	83.778976
School D	77.438495	77.337408	77.136029	77.186567
School E	82.044010	84.229064	83.842105	83.356164
School F	83.085578	83.724422	83.195326	83.035794
School G	83.094697	83.154506	82.765560	83.277487
School H	77.083676	76.996772	77.515588	76.492218
School I	83.787402	83.429825	85.000000	82.855422
School J	83.625455	83.372000	84.328125	84.121547
School K	83.264706	84.010288	83.836782	83.644986
School L	76.859966	76.612500	76.395626	77.690748
School M	77.187857	76.691117	77.491653	76.863248
School N	77.361345	77.672316	76.918058	76.179963
School O	83.605664	83.100478	83.533981	83.497024

Comparison between public and private school

	Average Writing	Average Math	% Approved Writing	% Approved Math	% Overall Approved
Type of School					
Private	83.89	83.48	96.58	93.62	90.43
Public	80.97	76.96	80.80	66.55	53.67

Thank you for taking the time to read my message, and I look forward to hearing back from you soon.
Best regards,
Caio di Felice Cunha

End