**Challenge 4 : Pandas\_challenge**

**Analysis report**



This analysis covers a district with 15 schools

* 8 charter
* 7 district

These schools’ range in size from 427 to 4976 students, with an average of 2611 students per school, for a total of 39170 students.

Budgets per student range from $578 to $655, with an average of $620 per student.



Results were significantly better in reading than in math, but the passng rate was significantly higher for reading at 85.81%, whereas in math the rate was only 75%.

The overall pass rate was 65.17% (means that the student passed in both Reading and Math)





Results for both disciplines are consistent across all grades (9,10,11,12), and this can be observed across all schools.

**Results by budget**



The budget allocated per student has no impact on school results

We observe that

* Schools with a budget of less than $585 have the best results.
* Conversely, those spending the most per pupil have the lowest results.

**Results by number of student**



School size seems to have a positive effect on results.

Large schools (with more than 2,000 students) have the lowest results, well ahead of other schools with fewer than 2,000 students: the passing rate rises from 58.29% to 89%.

**Results by school type**



The type of school also plays a very significant role in the results: District schools have a pass rate of only 53.67%, whereas for CHARTER schools the rate rises to 90.43%.

**In conclusion**

* Increasing the budget per-student has no impact on student performance.
* Accommodating students in schools smaller than 2000 students increases their overall performance by 54%.
* Managing schools with Charter status increases overall performance by 68%, even if the average budget per student is lower (CHARTER 600$ comparing to DISTRICT 643$)