**Written Report and Analysis for Pandas Challenge (PyCitySchools)**

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For this week’s challenge the task was to analyze a dataset from a total of fifteen schools and determine what underlying factors may be leading to their success or lack of success. Two different school types were included in this analysis, District and Charter. The schools had a large variation in budgets from less than $250,000 to over $3 million; however, the respective per student budgets were within a narrower window of $581 to $650. Schools were also compared across grade averages in Math and Reading, and the overall passing rates for those classes individually as well as an overall passing rate which took them both into account. Lastly, to prevent any biases developing against any one school; schools were grouped by budget, school size and respective type for analysis as well.

Conclusion #1:

School size is a direct factor in the overall passing percentage of students for math and reading classes with little to no difference in schools with less than 2000 students. The difference becomes stark for larger schools (>2000) as passing rates fall dramatically within this group of schools. It must be noted; however, that the individual averages fall at a much lower degree than the passing rates have.

Conclusion #2:

School type also plays a large role in the potential success of student in math and reading. Charter schools are seen to have individual class averages to be at least 3 percentage points higher and passing rates over 16 percentage points higher than their district counterparts. This is seen as a result of their smaller school sizes versus their district counterparts. Budget does not seem to be a significant reason for this as some charter budgets are much lower than district schools, but some are seen to be on par as well.