

City Schools Data Analysis:

Upon comparison of the district's standardized test results with school information, it is possible to discern a few trends. These trends are useful for suggesting better budget allocation.

First, there is a distinct split between the performance of the charter schools and the district schools: the top five scoring schools are all charter schools, and the bottom five schools are all district schools. Furthermore, when ranking all the schools, all of the district schools score below the lowest ranking charter school. The differences are strongest for average mathematics scores and pass rates. Further investigation into the specific methods that charter schools use should be done, to discover if any of those methods could be applied to district schools as well.

Meanwhile, the per-student budget does not seem to improve student performance. In fact, the average reading and mathematics scores, and overall and subject pass rates, seem to decrease (more drastically for mathematics than for reading) as the per-student budget rises. The extra money invested in each student could be going towards making other subjects not surveyed (like sciences and arts) or extracurricular activities more demanding, causing the specific standardized tests scores to suffer.

School size does appear to have an effect on student scores/pass rate, but it is not strictly linear; the scores are roughly similar between small(< 1000) and medium (1000-2000) -sized schools, with a slight rise in pass rates for the medium-sized schools. The difference between small/medium -sized schools and large schools is also more marked in mathematic scores/pass rates than with reading/overall scores/pass rates. Further investigation should be done into whether the smaller/medium schools also have smaller class sizes; if that were the case, it could suggest that greater individual attention in smaller class sizes is especially important to mathematics test scores improvement.

While standardized scores are an important mark of academic achievement, they are not the only useful metric. Teacher-assigned marks on projects and essays could also be analyzed to get a more holistic understanding of school performance. More subjects could also be included within the analysis.

Overall, further investigation is warranted into the qualities of charter schools and small to medium sized schools to see what elements of those schools most impact performance. District attention/budget should be directed towards encouraging charter/smaller sized school characteristics within district/larger schools to improve those schools' performances.