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Data Analytics Bootcamp

Challenge #4 written report

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An examination of the data can yield at least a couple of observations. One observation is that the school type influences the overall passing percentage. Another is that the school size also affects the overall passing percentage. We’ll discuss below.

The school types are “charter” or “district”. The summary finding shows that charter schools have an overall passing percentage of 90.4% while district schools have an overall passing percentage of 53.7%. This difference is quite large and seems to be caused primarily by the difference in passing math scores. Charter schools have a passing math score of 93.6% versus 66.5% for district schools. The underlying reasons for this difference should be researched and remedied.

The school size is also a big predictor of the overall passing percentage. Both small (<1000) and medium (1000-2000) sized schools have similar pass rates of 90-ish percent. However, large schools (2000-5000) have an abysmal passing rate of 58.3%. It seems likely that this (I’m speculating) might be the result of too few teachers, too little community, or both. In any case, the factors that are causing this dramatic disparity should be researched and remedied.

And additionally, a cursory examination shows a possible inverse relationship between per student spending and overall passing rates. Schools that spend <$585 per student all had passing rates of close to 90% and better. Can it be that greater spending somehow creates a lax environment or attracts teachers that perform more poorly? In any case, the answer is bound to be insightful and helpful.

To conclude, there are many clear trends in the data that should be systematically researched and enumerated so as to inform budgetary and structural decisions in the education environment.