Written Report

Pandas Challenge

Summary of Analysis

City leaders are seeking insight regarding the success of our students and the factors that contribute to that success. In order to assist strategic decisions, the following analysis has been performed. The primary factors considered for this report are budget, school size, and school type.

The first area considered is the relationship between spending per student and the rate of student success. It was found that the percentage of overall passing students surprisingly has an inverse correlation with the amount of money spent per student.

A screenshot of a graph

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School size is found to be a significant factor in student success. Large schools experience a dramatic decrease in student success compared to their smaller counterparts.

A screenshot of a graph

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School type also plays a strong role in contributing to rates of student success. As can be seen in the data, there is a stark difference between Charter and District schools. Charter schools have close to a 37% higher overall student success rate when compared to District Schools.

A screenshot of a score

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The story is told most clearly when focusing on passing math scores. Passing reading scores do demonstrate a decrease of approximately 10%-16% when comparing schools that are more funded, larger, and District when compared to their counterparts. However, that decrease shifts dramatically when considering math scores. When these schools’ passing math percentages are compared with their counterparts:

* Schools with the highest funding ($645-$680) has a 27% decrease compared to the lowest funded school (<$585).
* Larger Schools (2000-5000) experience a 23.5% decrease in contrast to both small (<1000) and medium (1000-2000) schools.
* District schools also drop 27% when compared to Charter Schools.

For broader efforts to increase student success in our schools, increased funding to existing schools is not seen to lead to increased student success. It would be a better allocation of funding to build more schools, thereby leading to more schools with a smaller student population; as well as explore greater support for charter schools vs. district schools.

Across all spectrums, the greatest impact can be made with a focus on math departments, specifically math departments at large, district schools. If a limited amount of funding is available from the city to be deployed to increase school success, a targeted focus to improve these math departments would lead to the overall greatest increase for our district’s schools.