District Student Data Standardized Test Results Analysis

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KU Data Analytics Bootcamp

Module 4 Challenge - Pandas Challenge

Due Date: April 27, 2023 **Background Information:**

• ②Standardized test scores that tested math and reading skills from 15 schools within the district have been analyzed. The 15 schools included 39,170 students that completed the testing.

☑When looking at the size of the schools the following criteria is used: ○ Small Schools with less than 1,000 students

- o Medium Schools with 1,000 to 2,000 students
- Large Schools with 2,000 to 5,000 students

Summary of Findings:

- The total budget for all schools combined in the district is \$ 24,649,428
- The average score for each of the tests (math and reading) are as follows:

Average Math Score: 78.98%Average Reading Score: 81.88%

- The percent of students that passed each of the tests is as follows:
 - o Percentage of students that passed the Math Test: 74.9808526933878%
 - o Percentage of students that passed the Reading Test: 85.80546336482001%
 - o Percentage of students passing both the Math and the reading test: 65.17232575950983%
- The district is made up of 2 school types:
 - o District 7 schools
 - Charter 8 schools
 - o The population of each school ranges from 427 students to 4976 students
 - The budget per student for each school ranges from \$578 to \$655

Findings and Observations

- Small and medium sized schools out-performed large schools by a significant amount for overall testing scores.
 The percentage of students that passed both math and reading in small and medium schools is 88.88% and
 90.62% respectively. Whereas only 58.28% of students in large schools passed both the math and reading tests.
- Charter schools out-performed District schools by a significant amount for overall testing scores. The percentage
 of students that passed both math and reading in charter schools is 90.43. Whereas only 53.67% of students in
 District schools passed both the math and reading tests.
- Schools that budgeted less per student out-performed schools that spent more by a significant amount for overall testing scores. The following shows the budget per student along with the percentage of students that passed both the math and reading tests:

Budget Range Per Student	% Of Students Passing
< \$585	90.37%
\$585 - \$630	81.42%
\$630 - \$645	62.86%
\$645 - \$680	53.53%