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Module 4 homework – Py City Schools; Pandas – Challenge.

Written Report Summary:

Summarize the analysis:

The school district contains a total of 15 schools and 39,170 students. The schools are either a Charter school, or a District school. Throughout the entire school district, we have a budget of $24,649,428.

Overall, the students are performing fairly well. We have median math score of 78.9 throughout the district, and a median reading score of 81.87. Combined, we have a 80.43% of students who are passing both math (74.98%) and reading (85.80%). As we can see, our district performs better in reading than it does in math.

If we look at the overall passing %, our top 5 schools are all charter schools. Cabrera (91.33), Thomas (90.94%), Griffin (90.59%), Wilson (90.58%), Pena (90.54%) are the top five performing high schools in the district.

The bottom five schools are all district schools. Rodriguez (52.98%), Figueroa (53.20%), Huang (53.51%), Hernandez (53.51%), Johnson (53.53%) are the bottom five performing schools within the district.

The most interesting part of the district analysis would be the % passing rate by school spending. Broken out into bins, the % passing rate is inversely related to the per student spending ranges. Our best performing schools (90.3% passing rate) are schools where the spending is less than $585.00 per student. We have four (4) schools in the district that have less than $585 per student – all of them are Charter Schools. Cabrera (91.33% passing rate), Holden (89.22% passing rate), Wilson (90.58% passing rate) and Wright (90.33% passing rate).

The schools where we spend the most money per student ($645 - $680 per student) have the lowest % overall passing rate. This specific bin contains 3 schools and combined have a 53.52% passing rate. Hernandez High School (53.52% overall passing rate), Huang High School (53.51% overall passing rate), Johnson High School (53.53% overall passing rate). All 3 of these schools are district schools that contain between 2000 – 5000 students.

It shouldn’t be surprising that the smaller schools are performing better. Schools with less than 2000 total students have a % overall passing rate of 90%. Our large schools (2000 – 5000 total students) have a combined 58% overall passing rate. This also goes with the type of schools. Our charter schools (largest charter school is Wilson High School is the only charter school with over 2000 students) are mostly smaller than district schools (smallest district school is Ford at 2700 students). The charter schools have a combined % overall passing rate of 90.43% and our District schools have a combined 53.67% overall passing rate.

Provide two correct conclusions or comparisons from the calculations:

My first conclusion of the data is that perhaps surprisingly against normal logic, there is an inverse relationship between per student spending and school performance. Our highest per student spend are actually providing the lowest overall grades. Our lower per student spending schools are proving much better % overall passing rates.

That being said, the 2nd conclusion is more in line with the common thought that the smaller schools are performing well. This is most likely due to the student/teacher ratio.