

## **Module 4 – Pandas Challenge**

### **Written Report**

#### **Overall Averages (All Schools):**

Total Schools: 15  
Total Students: 39,170  
Total Budget: \$24,649,428.00  
Average Maths Score: 70.34  
Average Reading Score: 69.98  
Maths Passing Percentage: 86.08%  
Reading Passing Percentage: 84.43%  
Overall Passing Percentage: 72.81%

#### **Top Performing Schools**

Griffin High School (Independent): Overall passing rate of 81.34%  
Cabrera High School (Independent): 80.79%  
Bailey High School (Government): 80.08%  
Wright High School (Independent): 79.72%  
Rodriguez High School (Government): 79.42%

#### **Bottom Performing Schools**

Hernandez High School (Government): Overall passing rate of 66.36%  
Huang High School (Government): 66.71%  
Johnson High School (Government): 67.19%  
Wilson High School (Independent): 67.46%  
Ford High School (Government): 67.47%

#### **Performance by Spending Ranges (Per Student):**

<\$585 Spending Range: Students in this bracket, on average, scored 71.36 in Maths and 70.72 in Reading. The passing percentages were 88.84% for Maths, 86.39% for Reading, and 76.72% overall.

\$585-630 Spending Range: Students here scored average marks of 72.07 in Maths and 71.03 in Reading. 91.52% passed Maths, 87.29% passed Reading, and 79.88% passed overall.

\$630-645 Spending Range: Students achieved 69.85 in Maths and 69.84 in Reading on average. The pass rates stood at 84.69% for Maths, 83.76% for Reading, and 71.00% overall.

\$645-680 Spending Range: Here, students averaged 68.88 in Maths and 69.05 in Reading. Passing percentages were 81.57% for Maths, 81.77% for Reading, and 66.76% overall.

### **Performance by School Size:**

Small (<1000) Schools: Averaged 72.34 in Maths and 71.64 in Reading. 90.81% of students passed Maths, 87.56% passed Reading, and the overall pass rate was 79.07%.

Medium (1000-2000) Schools: Scored average marks of 71.42 in Maths and 70.72 in Reading. The pass rates were 89.85% for Maths, 86.71% for Reading, and 78.04% overall.

Large (2000-5000) Schools: The average scores were 69.75 in Maths and 69.58 in Reading. 84.25% passed Maths, 83.30% passed Reading, and 70.29% passed overall.

### **Performance by School Type:**

Government Schools: Students scored an average of 69.83 in Maths and 69.68 in Reading. The pass rates were 84.46% for Maths, 83.59% for Reading, and 70.70% overall.

Independent Schools: Here, the averages were 71.37 in Maths and 70.72 in Reading. 89.20% passed Maths, 86.25% passed Reading, and 76.97% passed overall.

### **Conclusions**

From the data provided it shows that small to medium schools have higher passing rates in maths, reading and overall than larger schools. While increasing the average spend per student does not increase passing rate. This goes against what one would expect where putting more resources into a desired outcome should improve results.

Independent Schools have higher passing rates than government schools across the board and this is further evidenced with four out of five of the top performing schools being independent while 4 out of the bottom five are governments schools.

This data could be useful to policymakers for making informed decisions about what creates a successful learning environment for students going forward.