**Pandas Challenge Summary**

**Dianne Etmanski**

**The pycityschools assignment merges two csv files into a cohesive data frame that allows us to read the data in different ways to draw certain conclusions. This analysis gives an overview of the district as a whole, then breaks down the overall data by school. Two data frames will show the top and bottom performing schools respectively. Following this we look at the breakdown of grades for math and reading by grade and school and then compare those scores to the budget spending ranges for each student. The data is then compared against the size of the school. Finally, the data is sliced to see the comparison of grades in charter vs district schools.**

**There is a significant difference in the grades of small schools vs large schools. Large schools passing rates are below 70% for both math (62% ) and overall grades (58%). Large schools also had a nominally lower number of students passing reading (82%) which while less significant, still indicates that 18% of students in large schools are failing reading.**

**By comparison, small and medium schools are preforming with almost the same passing rates with 93% of students passing math, 96% passing reading, and overall passing at 89-90%. This would suggest that schools with populations 2000 students and under are more likely to succeed.**

**Also worth noting is the discrepancy between Charter and District schools. Charter schools are outperforming District schools in every area. Is this due to Charter schools receiving a higher budget per student? When we look at the data we can see that there is no major difference between the dollar amount per student in Charter vs District schools. In fact, looking at the data frame which looks at marks and % students passing against the budget allocated per student, it would appear that the higher the budget received per student, the lower the overall performance.**

**It would be my conclusion and proposal based on these findings that an audit should be done for each of these 15 schools to determine how their allocated budgets are being spent and if they can be more appropriately used to the benefit of the students. This is the next step to ensure student success in every school.**