In-Class Project 1

Submit in group. Due Jan 30th

The first in-class project aims to implement Excel to analyze data and review the basic descriptive statistics. You will need to download, clean up, rearrange, and merge data files. Once you have the data set ready, you can start using Excel functions and graphing tools to analyze the data. Finally, you need to export the results to a text-editor and write a report in a desired format addressing a series of questions.

1   Data

Please go to https://applications.education.ky.gov/src/DataSets.aspx, download ACT test scores for five high schools in Fayette County. They are Bryan Station, Henry Clay, Lafayette, Paul Dunbar, and Tates Creek. The data available in this page is from 2011-2012 school year to 2016-2017 school years.

2   Merge

You need to use "filter" to quickly select those five schools in each excel file and put them into a single excel file so that you will have "a data set" instead of multiple files. It is easier to analyze when you have everything in one place.

3   Questions

1. Provide a table of descriptive statistics, including the maximum, minimum, mean, median, MAD, standard deviation, and coefficient of variation for composite scores of these five schools. It looks like:

School	Max	Min	Mean	Median	MAD	Std	CV

2. Also obtain the same statistics for the whole Fayette County.
3. Which school performs the best? Which school performs the worst? How do you tell?
4. You may want to plot a graph to further support your claim.
5. Now you have access to median housing prices for each school catchment area in each year. Calculate the correlation between composite scores and housing prices for each school catchment area.
6. Discuss the previous result. What does that tell you?