PHI 169 – Critical Reasoning – Spring 2016

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Assignment #2 – PART A due March 9 – PART B due March 16

Note that each part has a different deadline. No late assignments are accepted.

The assignment must be typed. No hand written assignments are accepted.

This assignment can be done either alone or in group. *The group option is recommended*. If you select this option, hand in one copy of the assignment for the entire group.

PART A - Finding, arranging and displaying data

NB: *The assignment for part A should contain one table with the data, line charts and thoughtful answers to the questions below. Follow steps 1 through 5.*

1. Crime data Access the Justice Dep. crime statistics from 1960 to 2012, as follows:

- go to *www.bjs.gov/ucrdata/Search/Crime/State/RunCrimeStatebyState.cfm*
- select “United States-total" and “number of violent crimes" and then click “get table"
- save the file on your computer
- you may use Excel, Numbers, Google Sheets or any program you are comfortable with which can draw graphs based on data

2. Given your results from step 1, make a line chart[1] in which

- the x-axis corresponds to the years between 1960 and 2012
- the y-axis corresponds to the number of people
- the line represents the total number of violent crimes over the years
- label both axes, as well as the line

[1] If you do not know what it is, you may want to check the Wikipedia entry about "line chart".

3. Given your results from step 1, make a line chart in which

- the x-axis corresponds to the years between 1960 and 2012 (same as before)
- the y-axis corresponds to the number of people (same as before)
- one line represents the number of violent crimes over the years (same as before)
- another line represents the US population over the years
- label the graph appropriately

Can you see any change in the number of violent crimes over time? Explain (why not). Calculate the probability that you will be the victim of a violent crime in 1992. Show your calculations.

4. Crime rates In your spreadsheet table from step 1, add two columns, as follows:

- the rate of “total violent crime" relative to the US population from 1960 onwards
- the rate of “aggravated assault" relative to the US population from 1960 onwards

5. Make a line chart in which the rates in step 4 are represented as a function of time from 1965 to 2012. Label your graph appropriately. *What is the most striking message that you can read off this graph? Explain.*

PART B - WHICH VARIABLES CORRELATE WITH CRIME RATES?

NB: *The assignment for part B should contain a few line charts and thoughtful answers to the questions below. Follow steps 6 through 9.*

6. Incarceration rates Do the following:

- go to *www.bjs.gov/index.cfm?ty=nps*
- click on: Custom tables -> Jurisdiction: "All" -> Years: "All" -> Population: "Yearend Population" -> First Variable: "Total jurisdiction population" -> Generate Rates Tables (which will give you access to incarceration rates from 1978 onwards)
- make a line chart representing the incarceration rate between 1978 and 2014

7. Execution rates Consider the statistics about the number of executions per year in the US from 1978 onwards, available on the site of the BJS at the address

www.bjs.gov/index.cfm?ty=pbdetail&iid=2079

- click on "spreadsheet" and get the data
- make a line chart representing the execution rate (NB: rate) from 1978 onwards

8. Unemployment rates Google statistics about US unemployment rate over the past 40 years. Use reliable sources, e.g. US government, Department of Labor. Do the following:

- make a line chart representing the unemployment rate over time
- cite your sources

9. Summing up *By comparing the relevant line charts, did you find any correlation—positive or negative—between crimes rate, incarceration rates, execution rates and unemployment rate? Explain.*

PART C - YOU TRY! [*extra credit*]

10. Think of another variable that might correlate with crime rates, then do the following:

- find the appropriate data by relying on credible sources
- make a line chart that shows whether this variable correlates with crime rates or not

Does your variable do better or worse than incarceration rates, execution rates or unemployment rates as far as (positive or negative) correlation with crime rates is concerned? Explain.