

~~Course: Soc 225.3, Spring Term 2020~~
~~Assignment 1: Module 1 to 3 (15/70)~~
~~Due date: Friday, May 15, 2020~~

Suppose that you are interested in studying urban crime rate in Canada. Please complete steps below:

1. Raise a research question based on the above;
2. Measure “urban crime rate” as a variable;
3. List at least three variables that you think affect urban crime rate, AND measure each of them;
4. Explain the level of measurement for the four variables in Step 2 and 3;
5. Explain the unit of analysis in the study;
6. Explain the dependent and independent variables.

Twenty-five Canadian cities participated in a crime prevention program designed to educate citizens about ways of protecting themselves against theft. The following data are the average number of thefts in 25 cities reported each week before and after the program was completed.

(1) Before

66, 57, 56, 48, 48, 48, 42, 41, 41, 40, 39, 35, 34, 33, 32, 31, 31, 30, 30, 29, 26, 24, 24, 21, 20

(2) After

50, 46, 41, 40, 40, 40, 39, 39, 33, 31, 30, 29, 28, 26, 25, 25, 24, 24, 23, 22, 22, 20, 19, 18, 17

Please complete the following:

1. Construct a frequency distribution table for data pertaining to (1) and (2).
2. Calculate the median, mean, variance, and standard deviation for data in (1) and then data in (2), and please show procedures of each calculation.
3. Compare data in (1) and (2) based on Step 2, and explain the difference.
4. Construct a histogram from the frequency distribution in Step 1.