

SOC282 Lab Assignment 4: Due Feb 25th & 26th

PART I: CALCULATING CONFIDENCE INTERVALS BY HAND

1. The mean number of years of education completed in the United States is 13.43 with a population standard deviation of 3.08 years. Samples are taken of size 150. What is the 95% Confidence Interval for years of education based on the information given? *Show your work.* (2.5 points)

2. What is the 99% Confidence Interval for years of education based on the information given in problem #1? (The mean number of years of education is 13.43, the population standard deviation is 3.08, and the sample size is 150.) *Show your work.* (2.5 points)

3. What is the 99% Confidence Interval for years of education based on the information given in problem #1 if we increase our sample size to 250? (The mean number of years of education is still 13.43 and the population standard deviation is still 3.08.) How does this change out confidence interval from problem #2? *Show your work.* (3 points)

PART II: CALCULATING CONFIDENCE INTERVALS IN SPSS

4. Using SPSS and the GSS 2012 data, generate a 95% confidence interval for the mean number of children in the household (CHILDS). What does this confidence interval represent? Include the SPSS output of the descriptives showing the confidence interval for the mean. (1.5 points)

5. Using SPSS and the GSS 2012 data, generate a 99% confidence interval for the mean number of children in the household (CHILDS). What does this confidence interval represent? Include the SPSS output of the descriptives showing the confidence interval for the mean. (1.5 points)

6. How did changing the confidence level change the range for the confidence interval of the mean? How does increasing out confidence level change out precision? (1.5 points)