SW 891-201: Research Methods & Statistics
Study Questions - 8
DUE: 07/31/02

Study question answers must be typed and single-spaced. Where the question calls for a list, each item on the list should be on its own line.

Answers should be BRIEF.

If computations are called for, they should be neatly displayed on an 8.5 x 11 inch sheet of ruled paper.

All pages should be stapled together. Your name and the course number should appear on each page.

Lecture & Pyrczak

1. For a certain population of scores (X), we have the following information -
   \[ \mu_X = 100 \quad \sigma_X = 15. \]
   For a sampling distribution of means drawn from all possible samples of \( n=25 \), what would be the standard error of the mean (SEM, \( \sigma_X \))?

2. We know that the national average for the Social Work Skills test is \( \mu = 83 \). However, unlike the situation in the previous question, we do not know the population standard deviation. We have initiated a new program that we believe will increase the level of skill shown by our undergraduates. We have randomly sampled 36 BSW students from our program and administered the Social Work Skills test to them. The average score for this group was 86 with \( s = 12 \).

   Compute a 95% confidence interval around the sample mean based upon our sample size and sample standard deviation. Remember to use a t with appropriate degree of freedom.

   Show your work.