Homework #1: Measurement

Instructions

Submit answers to the questions below in hardcopy, typed or otherwise legible, at the beginning of lecture on the due date. Some questions may be answered with a single word, or with a multiple-choice letter. But be as complete as possible in your answers, on this and all assignments. If there is an open-ended question (such as "Why?"), put your answer in prose (sentence/paragraph) form and, where appropriate, show all any calculations done and explain all of the steps involved and all of the parts of each calculation. (For now, there are not separate "points" for showing each step, but I cannot give partial credit if I only receive a wrong answer.)

Questions

A. Do these six (6) problems from Chapter 1 (pp. 8-10) and Chapter 2 (pp. 24-28) of the Agresti & Finlay text:

1.**2**, 1.**16**, 1.**19**, 2.**2**, 2.**4**, and 2.**10**

For 1.16, be very specific!

For 1.**19,** use the CSUN library website to get to JSTOR; and provide a complete citation

For 2.4: (Interval, ordinal, or nominal only!

(I recommend that you also look at 1.6 and 2.5, but these are not assigned & won't be graded.)

B. Additionally, answer the following two questions:

1. We want to describe the so-called typical student at CSUN. Briefly describe a variable that measures some characteristic of the students and results in:
   a. an interval variable
   b. an ordinal variable
   c. a nominal variable

2. What is the scale of measurement that is most appropriate for each of the following variables:
   a. percentage of 11th grade students w/ standardized scores above a median
   b. college major
   c. high school class rank

Extra Credit #1: Misuse of Statistics

Instructions

You may earn 1 extra percentage point, added to your final grade, by submitting an example of a misuse of statistics published in a newspaper or magazine. You may not use an online resource such as a web page, nor a television or radio broadcast. You may, however, use anything printed – an article, editorial, advertisement, sidebar, even a cartoon – as long as it illustrates a *violation* of something you learn from *this* course.

You must submit a photocopy of the original article with the suspect use of statistics or data, as well as a typed, hardcopy, one-page, double-spaced explanation as to the misuse of the statistic. In your short write-up, be clear about what the problem is and offer suggestions of how it might have been avoided or resolved.

This is due the last class meeting, and may be turned in any time before then, but *will not* be accepted after the start of the last lecture. If you submit it earlier, you will have an opportunity to try again if, for example, what you submit does not meet the requirements give above. However, you may *not* merely present something and ask *me* if a misuse is involved. You must submit your claim in writing, with a valid and complete explanation.

Note, also, that this may be the most difficult of all of the extra credit opportunities, because publications have gotten better at presenting data over the past few decades (and because you might not read print). One, in particular, used to have something almost every day; few now have any. But if you find one, I'd *love* to see it!