

Give a typed answer on a separate sheet for each of the following questions.

1. Discuss the importance of having a pretest.
2. You are hired to estimate the proportion of registered republicans in your county who favor an increase in the number of nuclear weapons owned by the United States. How would you plan the survey? Go through the 11 steps of planning a survey. Realize that steps 4 through 11 cannot be completely followed at this time. Do as much as possible.
3. Readers of the magazine Popular Science (Aug. 1990) were asked to phone in (on a 900 number) their responses to the following question: "Should the United States build more fossil-fuel generating plants or the new so-called safe nuclear generators to meet the energy crisis of the 90s?" Of the total call-ins, 86% chose the nuclear option. What do you think about the way the poll was conducted? What do you think about the way the question was worded? Do you think the results are representative of the views of the country?
4. The Teenage Attitudes and Practices Survey obtained completed questionnaires, either by telephone or mail, from a randomly selected group of 9,965 12-to-18-year-olds living in households across the country. The teenagers were classified as NS = Never Smoked, EX = Experimenter with Smoking, FS = Former Smoker, and CS = Current Smoker.

One question was: "Do your peers care about keeping their weight down?" The data shown are the ***population projections (in thousands)*** calculated from the sample responses.

Care about keeping weight down	NS	EX	FS	CS
A lot	6297	3613	197	2114
Somewhat	2882	1677	90	793
A little	1441	625	16	354
Don't Care	1709	822	33	377

- a. Why would a question be formed in terms of peer behavior rather than as a direct question to the person being interviewed?
- b. Approximately how many teenagers have never smoked (as of 1989)?
- c. What proportion of teenagers think their peers care a lot about keeping their weight down?
- d. Do you think that perceived peer attitudes toward keeping their weight down are associated with the smoking status of the teenager?
Calculate appropriate proportions to justify your answer.