36-303: Sampling, Surveys and Society Notes on Team Working Assignments Thu Feb 10, 2011

Here is an updated schedule of Team Project Assignments, up through Spring Break.

So far...

- I.0 Teams Formed (Tue Jan 18)
- I.1 Propose Two Topics (Tue Jan 25)
- **I.2** Revise proposals (Tue Feb 1)
- **I.3** Choose Topic (Thu Feb 10). Revise items A.–G. for the topic you've chosen, submit to brian@stat.cmu.edu

Upcoming...

The remaining Team Project Assignments will more or less follow the "designing a sample survey" outline from the beginning of the semester. *DATES AND DETAILS HAVE CHANGED; PLEASE READ BELOW.*

- **II.4** Target Pop, Sampling Plan, Sampling Frame, Nonresponse Plan (Tue Feb 15; <u>one page</u>, emailed to brian@stat.cmu.edu)
 - Clearly define a *target population* that you can reach in your survey
 - Clearly discuss your *sampling plan*: How will you obtain a representative sample from the the target population you defined?

If you are using a sampling frame and random sampling this should involve:

- Clearly define a *sampling frame*: a list of persons in the target population from which you can draw a random sample. Acceptable frames include: (a) list of email addresses from which you can draw an SRS without replacement; (b) set of phone numbers or prefixes that you can use for random-digit dialling (this is again an SRS without replacement); (c) list or map of blocks, addresses, or similar geographic information you can use to randomly select houses or businesses to approach; etc.

- Clearly discuss how you will use the sampling frame to obtain a representative sample. Simple Random Sample (SRS)? Stratified Sample? Clustered Sample?

If you are sampling <u>not</u> using a frame and/or <u>not</u> using random sampling, this should involve:

- Clearly describe your plan for obtaining a sample from your target population. Acceptable plans include: (a) careful design of of times/dates/locations, where you will approach respondents; (b) a method of approaching or selecting respondents that removes respondent self-selection bias *and* interviewer selection bias; (c) a strong argument, based on verifiable facts and references, that this plan will have good coverage of your target population.
- Claerly discuss how you will treat different locations or occasions for your observations: Will you throw all observations into one big group and analyze it like a SRS? Will you treat different locations/occasions like a Stratified Sample? Will you treat them like a Clustered Sample?
- Clearly discuss how you will deal with nonresponse:
- What will you do about reminding or following-up nonresponders?
- If you suspect your sample is not representative of the target population, what adjustments do you anticipate making?
- **Team Working Agreements** (Tue Feb 15, in email to brian@stat.cmu.edu and **on paper**.) [see separate handout online at http://www.stat.cmu.edu/~brian/303]
- **II.5a** Sampling Scheme & Question Design (Thu Feb 24; email attachment to brian@stat.cmu.edu; I will only provide feedback if needed)
 - Items K, L, M on the "designing a sample survey" outline
 - Items K and M should be 1/2 page each. Item L should be however long is needed.
 - For item M, please also include information on oversampling to compensate for nonresponse. For example, if you anticipate a 25% response rate and you want a sample size of 120, how many respondents should you approach?
 - I want every group to do this calculation for SRS without replacement even if you will not be using this exact method in your survey.
 - If your group is planning to use a Stratified Sample or a Clustered Sample, we will discuss ways to adjust this sample size for these designs later in the semester.
 - If your group is planning a non-framed or non-random sample, you will need to figure out how to (afford to) take a sample at least twice as large as the SRS w/o replacemen calculation.

- **II.5b** Pretest & Revise Questions (Tue Mar 1; email brian@stat.cmu.edu ONLY part O. I will provide feedback only if needed.)
 - Items N, O on the "designing a sample survey" handout
- II.6 Final IRB & Project Plan (Thu Mar 3; email attachments to brian@stat.cmu.edu);
 - Final, full project proposal (items A-M on the "designing a sample survey" handout).
 - From this proposal, anyone outside our class should be able to read and understand completely what you are proposing to do.
 - IRB form filled out completely, with all necessary attachments (see IRB information at http://www.stat.cmu.edu/~brian/303 or see CMU website http://www.cmu.edu/osp/regulatory-compliance/human-subjects.html).
 - A draft informed consent statement for your survey.

Turn in all three to me, not CMU IRB.

Peer Evaluation (Thu Mar 3). Please fill out and submit, on paper or in email, peer evaluations for your group. For eample, if you have a five-person group, each person should submit 4 evaluation sheets: one for each other person in your group (for a total of 20 sheets from your group!). Peer evaluation sheets are available on-line at http://www.stat.cmu.edu/~brian/303.

You will be graded *both* on submitting a full set of peer evaluations for your group *and* what other members of your group say about you in their peer evaluations of you.