Statistics 36-303: Sampling, Surveys and Society
Designing a Sample Survey
OVERVIEW

I.0. Team Requests *(Fri Jan 14*)*

I.0. Team Assignments *(Tue Jan 18*)

Create a team of 4-5 individuals. You have just until Friday January 14 to do this. On Tuesday January 18 I will make teams up out of all of the people who didn't find teams yet.

Schedule a team meeting *no later than* the weekend of January 22-23 at which you need to identify two survey projects (one *on-campus* and one *off-campus* that your team could actually implement over the course of the semester.

See the separate handout on project ideas and proposals, for examples and general expectations.

Do Parts I.1 and I.2 below for BOTH of the topics that you select. By Feb 08 you will need to settle on a topic for your team project. If your survey has a client, this may lead to a different schedule of work.

I.1. Propose Two Topics *(Tue Jan 25)*

For each topic, each team should submit a one- to two-page proposal. Each proposal should begin with a title that indicates the topic, and the names of every team member. The section headings of the proposal should include the following three items.

A. Why is this topic interesting? Why does *this* survey need to be done *now*? Is there a client for whom you might do the survey?

B. What question(s) do you propose to study? Give a brief answer that would have been understandable by a non-statistician.

C. What research has already been done on the topic or on the theoretical construct of central importance to your topic? What could be learned from survey results? Each group member should locate and review 1 relevant item of research (e.g., article, report, book, etc.). For each item, provide:

   - Full author name(s), date, title, where it appeared (book title and publisher, if it appeared in a book; magazine title, date, page numbers, if it appeared in a magazine; website title and web address if it appeared online, etc.)
   - A sentence or two summarizing the item and what its connection is to the survey you are proposing.
   - The name of the team member who found this item.

Each item will be turned in on the indicated due dates. "*" indicates a major item that you must "pass" before you continue.

There is no restriction on what kind of surveys you propose, except that they should be doable by your team, in this semester.

NOTE: *If your team is interested in the Jewish Chronicle project, please indicate that separately in this assignment. It does not "count" as one of your two proposals, but your team may be selected to work on this project.*

I.2. Target Population, Frame, Mode of Data Collection *(Tue Feb 1*)*
(See Also: Separate Assignment on Team Working Agreement)

For each of the two topics you proposed, each team should add the following sections to their proposal, making it 3–5 pages in all.:

D. What is the *sampling frame*? What population or populations do you plan to sample from? (This is the question many tend to miss).
E. What is the *target population*? To what population(s) do you wish to make inferences?
   - How does the *target population* differ from the *sampling frame*, for your survey?
   - What possible sampling and non-sampling errors could arise in the survey that you plan to conduct?
   - Explain each possible error, how it could occur, and how you suggest tackling it.
F. What is the *mode of data collection*? How do you plan to carry out the survey (e.g., by telephone, e-mail) and why?
G. What variables do you propose to measure?

I.3. Choose Topic & Write Final Proposal, Begin IRB *(Tue Feb 08*)*
(See also: Peer Evaluation Assignment)

H. On the basis of feedback to your submission for Parts I and II, choose a final survey topic, and update or revise your answers to (A) through (G) above. Submit the revised proposal.

If your team's project involves human subjects/respondents, attach the following to the final, revised proposal:

I. Fill out the IRB form (available on the course webpage). *Submit to me, not CM's IRB.*
J. How do you plan to protect the privacy and assure the confidentiality of respondents? Talk about data collection, protection, and disclosure.

II.4. Sampling Scheme & Question Design *(Tue Feb 15)*

K. Decide on a sampling scheme (e.g., SRS, Stratified random sample, etc.) and explain why you chose it.
L. Write a questionnaire with 20–30 questions. Up to approximately 1/3 of these can be background or demographic questions and the rest should be directly related to the research questions you will try to answer with your survey. **NOTE:** If your survey involves observations instead of asking people questions, then instead you should carefully describe your *observation protocol*. That is, list 20–30 things you will always look for when observing each unit in your survey.

M. Give some idea of the sample size you will require and how you arrived at this number (talk about the margin of error for inferences you want to make).

II.5. Pretest & Revise Questions *(Tue Feb 22)*

N. Pretest of a revised version of your questionnaire (or observation protocol) on a group of possible respondents/units.

O. Report on the specification of and results from the pretest, and any redesign of the questionnaire (or observation protocol) that may be required.

II.6. Final IRB & Project Plan *(Tue Mar 1*)*

P. Submit a final revised version of (I) through (M) to go to the University IRB. *Again, submit to me, not CM's IRB.*

Q. Develop and report on your schedule for implementing the survey, including plans for nonresponse followup, data analysis, and preparation of a final report.

Once this final version of the survey plan is approved you will be able to begin implementation.

III.7. In-Class Progress Report Presentations on Data Collection & Analysis *(Mar 22, 24, 29)*

III.8. Rough Draft of Final Report *(Fri Apr 01)*
(See also: Peer Evaluation Assignment)

III.9. Final Reports

- In-Class Final Report Presentations ***(Apr 21, 26, 28)***
- Final Draft of Final Report Due ***(Fri Apr 29*)***

(See also: Peer Evaluation Assignment)