

# Sampling Survey Design Concepts & Terms

**Study Goals:** Intended Use, Planned Statistical Analyses, Impact of Missing Data

**Setting:** Natural Vs. Contrived

**Subjects:** Disguised Vs. Non-disguised

**Data Collection/Survey Delivery:**

Human Vs. Mechanical Observation

Direct Vs. Indirect

Structured Vs. Non-structured

Target Response Rate

**Measures Used To Maximize Response Rate:**

Professional Production/Presentation

Incentives

Cover Letter or Flyer

Clear, Concise Instructions

Limited Number of Questions

Non-threatening First Question

Categorization of Questions

Varied Question Type

Convenient Return Mode

Follow-up Letters

**Anonymity & Confidentiality**

**Consultations**

**Wording Of Questions:**

No Intimidating Wording

Narrowed to One Dimension (Bit of Information)

All Possible Answers Accommodated

Mutually Exclusive Answer Options

Inclusion of Neutral Answers (e.g. Don't Know, No Opinion)

Produces Variability in Answers

Does Not Presuppose A Certain State of Affairs

No Implied Answers

No Answers Dependant On Previous Question

Ranked Answers Limited To Five Items Or Less (No Importance Ranking)

**Order of Questions**

**Pre-notification Letters**

**Cover Letters**

**Sampling Method**

# Survey Time Planning Manager

<b>Survey Design Tasks</b>	<b>Hours</b>	<b>Duration</b>
Goal clarification		
Study design		
Selection of sample		
Designing the questionnaire		
Prepare cover letter or flyer		
Conduct pilot test		
Revise questionnaire (if necessary)		
Printing time for questionnaire & cover letter/flyer		
Locating the sample (if necessary)		
Time in the mail & response time		
Attempts to get non-respondents		
Data entry and verification		
Coding open-ended responses		
Analyzing the data		
Preparing the report		
Printing & distribution of the report		

# Goal Clarification/Study Design/Selection of Sample

**Team Members:** \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_.

**Proposition:** \_\_\_\_\_

**Target Population:** \_\_\_\_\_

**Subpopulation A:** \_\_\_\_\_ **Subpopulation B:** \_\_\_\_\_

**Focus Categorical Variable:** \_\_\_\_\_

**Define Focus Proportion:** \_\_\_\_\_

**Focus Quantitative Variable:** \_\_\_\_\_

## **Focus Question #1:**

Within the target population of \_\_\_\_\_, is the proportion of \_\_\_\_\_ in the subpopulation of \_\_\_\_\_ (A) equal to the proportion of \_\_\_\_\_ in the subpopulation of \_\_\_\_\_ (B)?

## **Focus Question #2:**

Within the target population of \_\_\_\_\_, is the mean number of \_\_\_\_\_ (quantitative variable) in the subpopulation of \_\_\_\_\_ (A) equal to the mean number of \_\_\_\_\_ (quantitative variable) in the subpopulation of \_\_\_\_\_ (B)?

**Cover Letter/Flyer:** A (cover letter, flyer) will be prepared to explain the purpose of the survey. This written material will (explain the intended purpose of the survey), (promote the need for such a survey), (provide instructions/clarifications), (provide deadlines for response), (describe incentives for participants), and (\_\_\_\_\_).

**Proposed Setting of Data Collection:**

Data will be (directly; indirectly) gathered in a \_\_\_\_\_ (natural; contrived) setting for the target population of \_\_\_\_\_, \_\_\_\_\_ (describe location). The survey will be (disguised; non-disguised), so subjects (will be aware; will not be aware) of the data collection process. The subjects will (be; not be) anonymous. All responses will (be; not be) confidential.

**Proposed Sampling Method:**

A (random; stratified random; systematic; cluster) sample has been chosen for this survey. (Add the following clauses that apply.) {The population will be divided into (#) homogeneous strata, (list strata.)}; {(The population is divided into (#) heterogeneous clusters, (list clusters.)}; {A census for the target population was available with all subjects listed in a random order, not alphabetical.}

**Random Selection Of Subjects From Population:**

Random selection of (subjects; clusters; subjects within each strata) will be conducted.

\_\_\_\_\_ (describe process of random selection) The following measures will be implemented to insure that all members of the population are equally likely to be chosen for the survey. (list measures as bullet subpoints below)

- \_\_\_\_\_
- \_\_\_\_\_

**Target Response Rate:**

\_\_\_\_\_%; The response rate should be positively influenced by \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ . (Choose three from the list provided).

**Proposed Data Gathering Methods:**

(Human; Mechanical) collection has been chosen. {The interviewer will verbally ask the subject each question, and carefully record responses on \_\_\_\_\_ (describe recording device). }; {The interviewer will provide each subject a copy of the questionnaire, will review it after submission for oversights, and store the responses in \_\_\_\_\_ (describe recording device). }

**Proposed Statistical Procedures:**

Planned inference procedures include (confidence interval estimates, one-sample tests of significance, two-sample tests of significance) for (proportions, means, both means and proportions). Two-sample tests of significance for means (will, will not) use pooled data because the variances for the two subpopulations are (known, not known) to be equal. These analyses will determine if a statistically significant differences exist between: (1) the proportion of \_\_\_\_\_ (focus proportion) for the two subpopulations, \_\_\_\_\_ (A) and \_\_\_\_\_ (B) ; and (2) the means for \_\_\_\_\_ (quantitative variable) in the two subpopulations, \_\_\_\_\_ (A) and \_\_\_\_\_ (B).

**Potential Sources of Bias/Proposed Mitigation Measures:**

- \_\_\_\_\_ (type of bias); \_\_\_\_\_ (briefly describe mitigation measures taken to avoid)
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**Proposed Pilot Test:**

A pilot test of (#) subjects will identify unforeseen bias in the wording of the questions, and any other survey design modifications that may be required to insure meaningful results.