Primary methods of survey data collection

• Self-administered questionnaire (SAQ) – Mail
• Face-to-face interview
• Telephone interview

Self-administered Questionnaire Survey

• 1 Steps are:
  – a. Mail distribution and return
  – b. Monitoring returns
  – c. Follow-up mailings
  – d. Incentives are sometimes used
• 2. Advantages
  – a. Cheaper and quicker
  – b. Same cost for national and local survey
  – c. Can offer anonymity

Self-administered Questionnaire Survey (Continued)

• 3. Disadvantages
  – a. Requires literacy
  – b. Low response rates -- non-response biases
  – c. Can only ask simple questions
  – d. Interviewer cannot observe
• 4. Acceptable response rate
  – 60-80 percent
II. Face-to-face Interview Survey

1. The Role of the interviewer
   - Interview effects vs. interviewer effects

2. Advantages
   - a. Fewer incomplete questions
   - b. Higher return rate
   - c. Interviewer can observe
   - d. Appropriate for complicated issues

Face-to-face Interview Survey (Continued)

3. Disadvantages of interview
   - a. Higher cost
   - b. Slow field work
   - c. Interview bias

III. Telephone Interview Survey

1. CATI (computer-assisted telephone interviewing)

2. Advantages of Telephone Survey
   - a. Lower cost than interview surveys
   - b. Faster speed (e.g., political polls)
   - c. Easier to supervise field work
Telephone Interview Survey
(Continued)

• 3. Disadvantages of Telephone Survey
  – a. Questions must be short and simple
  – b. Lack of visual contact -- cannot use certain tools
  – c. Potential biases due to selectivity of a sampling frame

• Problems with using telephone directory as sampling frame? (50 years ago and now.)

Survey construction

• Questions look very simple
• Construction of a good survey instrument is extremely difficult

Guidelines for asking questions
  a. Questions and statements

• Question: What is your annual salary?
• Statement: I am adequately paid.
  Strongly agree, agree, neutral, disagree, strongly disagree (Likert scale)
• Usually, questions are used to gather facts; statements are used to gather attitudes.
b. Open-ended and closed-ended questions

- Example:
- Open-ended: How do you feel about the education you are receiving at UW?
- Closed-ended: How would you rate the education you are receiving at UW?
  - ( ) poor
  - ( ) fair
  - ( ) good
  - ( ) excellent

Tradeoff between open-ended and closed-ended questions

- The greatest advantage of the open-ended question is the freedom the respondent has in answering. But answers to open-ended questions are difficult to code.
- Responses to closed-ended questions are easy to code and analyze. But they limit the amount of information the respondent could provide.

Coding

- Method for storing data electronically
- Example

<table>
<thead>
<tr>
<th>Case ID</th>
<th>Sex</th>
<th>Income</th>
<th>…</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>10,000</td>
<td>…</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>15,000</td>
<td>…</td>
</tr>
<tr>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
</tbody>
</table>
Other Important Points re: Survey Questions

c. Make items clear
   • When definitions are necessary, provide the definition.
     e.g., “have you ever cohabited?” may not be a clear question
d. Avoid “double-barreled” questions
   • Do not mix two questions into one sentence.
   • Example, avoid statements such as
     “Making money and helping people are important in life.
e. Do not ask questions that respondents cannot answer.
   • e.g., avoid questions such as
     What do you think of relations between China and Albania?

Other issues

f. Questions must be relevant
g. Short items are the best
h. Avoid negative items
i. Avoid biased items and terms
   • Example: Should we agree with communists’ proposal of using abortion as an effective means of birth control?

Social desirability

• Many respondents want to make a good impression on the interviewer by appearing sensible, healthy, mentally sound, free of prejudice, and the like.
• Examples
  – Sex studies: The National Health and Social Life Survey.
  – Studies of racism
IV. Questionnaire Construction, Different Formats

• 1. Likert scale
  – Given a statement, strongly agree, agree, uncertain, disagree, strongly disagree.

• 2. Intensity rating scales
  – In your opinion, the president's performance is
    – ( ) poor
    – ( ) fair
    – ( ) good
    – ( ) excellent

3. Numerical rating scales

• Suppose that the prestige of the best occupation in modern America is 100 and that of the worst occupation is 0. How would you rate the following occupations?
  – Engineers
  – Sociologists
  – high school math teachers.

• Also, “feeling thermometer” questions.

3. Ranking

• Please rank the following in their importance to you when you choose which college to attend:
  __ tuition
  __ distance from home
  __ quality of the faculty
  __ size of the school
  __ weather
Skip patterns / Filters

3. More then one respondent participating with replication?
   Yes, otherwise insert line for next page.
   No, otherwise insert line for next page.

4. More then one respondent (do not hurt HH, could not be compared to trends)?
   Yes, otherwise insert line for next page.
   No, otherwise insert line for next page.

Index example

Source of Error

• (1) Sampling Error (sampling variability)
  – Sampling errors diminish as sample size increases. => related to cost.

• (2) Non-sampling Error (biases)
  – Non-sampling errors are called biases, which do not diminish as sample size increases.
    – (a) Response effects (e.g., survey biases)
    – (b) Non-response effects (e.g., sample selection biases)