People, Partnerships, and Communities

**The purpose of the People, Partnership, and Communities series is to assist The Conservation Partnership to build capacity by transferring information about social science related topics.**

USDA Natural Resources Conservation Service

Social Sciences Team

# Designing Surveys for Conservation Activities

## What are surveys useful for?

Surveys are used to gather individual responses to questions about attitudes, beliefs, intentions, and behaviors. If you use proper sampling techniques, surveys can represent all people in a community, county, state, or nation. This sheet gives you an overview of what it takes to select and manage appropriate survey formats. While this sheet does not provide the nuts and bolts of survey design, it does provide enough informa- tion for you to work intelligently with a local expert in survey design and implementation.

## Who can use this survey information?

Conservation Districts can freely survey people in their states or district, while NRCS personnel, as Federal employees, can provide technical assistance to Districts to help develop and analyze surveys. Federal agencies are not permitted to conduct surveys unless the survey's questions are pre-approved by USDA in Washington, D.C. Policies and laws governing the approval for state conservation agencies to conduct surveys are different for each state.

## When should you consider using a survey?

You can use surveys when you want to gather information from the public at large or specific sub-populations. After gathering and analyzing the information, you can apply the results in any number of ways including developing outreach strategies for locally led conservation planning, evaluating programs, summarizing the views of the surveyed population to leaders, providing feedback to the target population, and so on.

## How are surveys conducted?

The most commonly used survey methods are: person-to-person interviews, drop-off and pick-up questionnaires, mail questionnaires, telephone surveys, and computer assisted telephone interviews (CATI). Although surveys are now very common and you see results reported daily in newspapers or in media news reports, they are difficult to develop and implement correctly. You need special training to properly use surveys. *The following are some general considerations to keep in mind when you are designing or working with someone to design a survey.*

***Reason for the survey*** There are many reasons for conducting surveys including: improving outreach, assessing program impacts, evaluating program effectiveness, measuring customer satisfaction, assessing attitudes and intentions, increasing program support and funding, and discovering people's past behaviors in the use of conservation. Most surveys are developed for a combination of reasons.

***Desired Response rate*** You can get response rates between 60 and 90 percent through face-to-face personal interviews and telephone surveys. These are high response rates because people tend to respond when contacted directly by another person. Another reason is adult illiteracy in the United States is estimated to be about 20 percent and these techniques do not require respondents to be able to read or write. Expect about a 20 percent response rate or lower if you send a mail survey once without any incentives like coupons or prizes. Response rates increase with incentives. Higher response rates of approximately 40-70 percent for mail surveys can be achieved if you take the following steps: (1) send the initial survey with a stamped return

envelop; (then, at 3 week intervals) (2) send a post card reminder to non-respondents; (3) send another survey with return envelop; and, (4) send a certified letter containing the survey with return envelop. These mailings increase response rates, but they also add to the cost. Expect to receive a few complaints about sending a certified letter.

***Cost*** Shop around. There is a surprisingly wide range of cost charged for conducting surveys, but often you can receive a similar high quality product no matter what you pay. Major cost factors are the sample size and the type of survey. Universities, private consultants, graduate students, survey research centers can all conduct valid surveys.

***Time of survey, from start to finish*** There is great variability for the time it takes to get surveys results. CATI surveys usually take the least time from start to results; face-to-face surveys take the most time because the interviewer has to travel to each interview site; and mail surveys are in the middle. The time also varies based on the analyst's hardware and software.

***Length of survey*** Social scientists know through experience that the shorter the survey the more likely people will respond. Ask only necessary questions, not those that are "nice to know". ***Piloting the survey*** Piloting a survey at least once is absolutely necessary. Send a draft to a small select group to obtain their assessment of the survey's clarity and applicability. Changing the survey according to their suggestions increases the likelihood that the sample will understand the meaning of the questions.

***Content of the questions*** If you are not totally knowledgeable about the topic, you should conduct a focus group session or interview with those who are knowledgeable to determine the questions.

***Background questions*** MOST (not all) people are willing to provide personal information on a survey as long as they know the information will be treated CONFIDENTIALLY. Asking for background information seems more unsettling to the people who sponsor surveys than to those filling it out. Without asking for the respondent's age, income, education, race and ethnicity (for example), the survey cannot be used to target information and services to the respondents. ***Format of questions***

*Open Ended Questions:* It is relatively easy to put this type of questionnaire together but it takes a long time to evaluate the responses because you have to categorize and code each response to each question. (e.g., Why do you apply conservation systems?)

*Forced-Choice Question:* Use when you know a high percentage of the possible responses; use an "other _____" category to capture atypical responses. (e.g., Check the major reason why you apply conservation systems: economics, stewardship, tradition, etc.)

*Likert Scale:* This type of scale has multiple possible responses such as a scale that ranges from "1", strongly agree, to "7", strongly disagree. A typical scale has 5-7 possible responses, but any number of responses can be offered. A Likert Scale provides more information than asking a simple "yes-no" question.

## Advantages of Surveys

- Both questions and techniques can be flexible
- Inexpensive
- All decision makers can be surveyed
- Serves as a record of opinions and knowledge
- Quick analysis

## Disadvantages of Surveys

- Badly designed surveys yield inaccurate results
- Requires time and expertise
- Questions may not get at underlying reasons
- Some people do not like surveys
- Invades people's privacy

## Where can you get more information?

*Mail and Telephone Surveys: The Total Design Method.* Don A. Dillman, New York, New York: John Wiley and Sons, 1978.

*Guidebook: Information Gathering Techniques.* National Association of Conservation Districts, National Association of State Conservation Agencies, USDA Natural Resource Conserva- tion Service, 1994.

*How to Conduct Self-Administered and Mail Surveys.* Linda Bourque and Eve Fielder, The Survey Kit, Volume 3, Sage Publications: Thousand Oaks.

## *Sampling*

A representative survey is based on the assumption that a small number of people usually respond much the same as would a larger number of people. The small number of people is called a sample. There are many different types of samples, but for the most part, the key is that each person in a general population (e.g., all farmers) or a sub-population (all wheat farmers) has an equal chance of people being selected for the sample. The number of people you pick for a sample is based on statistical inference and is a percentage of the total population of the group. Sampling is an inexpensive way of representing All people in a target population.

| Population Size | Sample Size |
|---|---|
| 400 | 200 |
| 1500 | 316 |
| 10,000 | 385 |
| 500,000 | 800 |
| over 1,000,000 | 1100 |

***The samples in this table have a (+ or -) 5 percent margin of error. This means that if 60 percent of a sample answered "yes" to a question then you are 95 percent confident that between 55 and 65 percent of the total population would give this same answer.**