Introduction

Surveys are the most common form of research in the social sciences, and we are all regularly exposed to them in one form or another. We may be stopped on the street or in a shopping mall by interviewers who ask our opinions on current issues or our preferences for consumer items. We are telephoned by surveyors who ask how we intend to vote in an upcoming election or why we chose one airline over another. We receive a variety of questionnaires in the mail—from government agencies, business corporations, and community organizations. Newspapers report the latest public opinion polls; the major television networks employ their own pollsters. All these are forms of survey research: systematic attempts to collect information to describe and explain the beliefs, attitudes, values, and behavior of selected groups of people. Virtually every topic of interest in the social sciences has been studied through surveys, and the broad adaptability of this research method is one of its greatest strengths.
Survey Research

The characteristic of surveys that best illustrates their value and explains their extensive use is their ability to produce a representative distribution or cross section of the "target" population, whether that population be the entire American voting public or the people who stayed at a certain hotel during a given month. Because the value of a survey depends on the representativeness of the group surveyed, the sampling plan and its execution are almost as crucial to final success as are the planning and execution of the overall survey itself. Hence anyone conducting a survey would be well advised to begin by thoroughly reviewing all issues and options related to sampling.

A major difference between the survey and other research methods lies in the number of persons from whom data are usually collected. Surveys generally use much larger samples of subjects than are used in research involving intensive interviews, experiments, or observational studies. Stouffer (1966) conducted a survey of beliefs about the threat of communism and about the extent to which civil liberties ought to be curtailed in order to deal with the perceived threat. The study was based on two national samples, a total of approximately 5,000 people, drawn to represent a cross section of the national population. In order to permit systematic comparison of the views of an influential elite with those of the general public, the study also included interviews with 1,500 community leaders. Stouffer’s sample was larger than that required for most surveys, but minute compared with that of James Coleman et al.’s study entitled Equality of Educational Opportunity (1966), which surveyed 570,000 students and 62,000 teachers. The U.S. Bureau of the Census conducts a monthly mail survey of approximately 50,000 households in order to arrive at an accurate description of current labor force characteristics, such as the unemployment rate. Despite these examples of massive studies, the standard, accepted sample size for contemporary national surveys is about 1,500 cases, and in carefully designed and well-executed surveys, much smaller samples can and do regularly produce surprisingly accurate results.

After the size and type of sample have been determined, several other decisions must be made before a survey can be conducted. How much personal contact will be necessary in order to gather the data? Must each of the subjects be contacted in person? And if so, how much time and expense are involved? Would it suffice to contact the subjects by mail or telephone? The savings in time and expense can be enormous, but the data will not be as accurate or as detailed, and the tendency of subjects to refuse to provide data will be higher. Can the objectives of the research be met with a single survey? Or must several surveys be conducted at different times in order for changes and trends to be measured and analyzed? These overriding design issues must be resolved before a researcher can construct a questionnaire or establish specific tactics for data collection.

A survey research project may be thought of as a sequence of major steps to be carried out. These steps include: formulating research objectives, deciding how to collect the data, constructing the questionnaire, choosing a sampling method, preparing the collected data for processing and analysis, and processing and analyzing the data. Since sampling techniques and methods of data analysis have been treated in detail in other chapters, the discussion that follows will concen-

1 Some surveys, instead of sampling, study all members of their target populations. The U.S. Census is an example.

Survey Design

As has been emphasized in earlier chapters, no research method flows from one discrete step to the next by a totally rational and trouble-free process, because no researcher can anticipate all possible contingencies. But research methods do differ in their degree of rigor; in one method the stages of planning, data collection, and data analysis may be more distinct than in another. Compared with other research techniques, surveys are fairly rigid and structured; each step builds on what has gone before and necessarily inherits all the limitations of preceding plans and procedures. If a researcher has a brilliant insight in the middle of an interview, it is probably too late at that point to formulate and test a new hypothesis. Hence in survey research the planning stages are crucial, for upon those stages will depend the worth and relevance of the survey’s results.

FORMULATING OBJECTIVES AND HYPOTHESES

Although the survey method has wide applicability, one can never assume that a survey will be an appropriate research strategy until the aims of the inquiry have been fully articulated. Thus the formulation of objectives must precede the choice of research method. Begin, therefore, by asking yourself, “What do I need to know, and why do I need to know it?” Most research projects start with very general answers to this question, but those answers must then be narrowed, focused, and justified.

Motivated simply by curiosity, a political scientist might begin a study about the degree of public support for certain local and national politicians, both incumbents and challengers. The researcher may then anticipate possible results and try to imagine what related popular sentiments might produce one or another election outcome. Does the project aim simply to describe the current popularity levels of a group of politicians, or does it also aim to discover the reasons behind the differing fates of public figures? What are the general issues that concern people and that affect their attitudes toward public figures? Are politicians being judged on style or performance, on local or national issues, on action or rhetoric, on work or visibility, on their own records or the general tide of events during their tenure in office? These research questions could be studied in a number of different ways.

A survey could be conducted in which a researcher first asks a sample of people to name some politicians they like and some whom they dislike and then probes for detailed reasons behind the stated preferences. The data thus collected might reveal a great deal about what people believe to be true about political figures and might help to explain the figures’ relative levels of popularity. Another researcher might approach the same set of questions by means of a different method, relying on other kinds of data, such as politicians’ legislative voting records, campaign speeches, and literature, measured against the length of their political careers and the percentage of votes they have polled in each election.
Whether the result of these procedures proved more or less useful or illuminating than the findings produced by a survey would depend largely on the priorities of the individual researcher and on the nature of the specific questions asked.

Before you decide that the survey method is necessary and suitable for your research project, thoroughly review all the existing literature (books and articles) written by other researchers on the same general topic. Many of the points of interest to you may have been resolved by previous studies. Or relevant data may exist in "underanalyzed" form, which you could obtain and turn to your own purposes. Only after you have reviewed and exhausted these possibilities should you embark on a fresh survey of your own. Although a review of past research might occasionally produce satisfactory answers to your queries, it is far more probable that reading the results of others' work will help you to clarify exactly what questions, out of the many that will probably occur to you, are most worth pursuing.

Another procedure helpful in the formulation of survey objectives is the pilot study: a tentative examination, using relatively unstructured interviews, of a handful of subjects who are similar to those who will be the target of the later survey. Pilot studies, like rehearsals, are intended to allow the researcher to try out various possibilities before deciding which ones to adopt. Such studies can often stimulate new lines of inquiry, prompted by the reactions or unsolicited responses of the subjects. They can also suggest new types of data that should be collected, point up and resolve ambiguities in the way that questions are being asked, indicate modifications needed in the order of topics covered, and help to eliminate fruitless lines of inquiry. If a study of migration to cities were planned, the pilot phase might involve in-depth, intensive interviews with migrants in several different areas. It might serve as a guide to the sampling of those who have moved and to uncovering reasons for migrating that had not occurred to the researcher. Any investigator who contemplates an extensive survey should consider the pilot study as an opportunity to discover and correct mistakes before they become serious or irremediable.

CHOOSING A TIME FRAME

After you have formulated a research question, and if you have decided that a survey is the most appropriate method for collecting data, you must determine whether all necessary data can be collected at once or whether it must be collected by means of surveys conducted at different times.

CROSS-SECTIONAL DESIGN. A single, unrepeatd survey, referred to as a cross-sectional design, has the virtue of producing prompt results; such a study can often be completed within a few months or weeks, or even within a few hours. The cross-sectional design is most appropriate for drawing inferences about the characteristics of the population from which you drew your sample and about the degree of association between those characteristics.

Television news services sometimes sponsor "instant surveys" immediately after a presidential speech or a major controversial event. Usually, such a survey is conducted by telephone, and the results are available within twenty-four hours.

Suppose a team of researchers interested in exploring the fear of crime in American cities chooses six cities of different sizes, carefully selects samples of households within each city, hires interviewers, and conducts a survey in each city. When the data have been collected and analyzed, the researchers may generalize about the extent and distribution of fear of crime in each city and about the variations in levels of fear within the population of each, and they may make comparisons among the cities. Using a cross-sectional survey design, they may draw an elaborate picture of fears of violence and victimization at one moment in the history of six American cities. Through detailed examination of variations in fear levels within and among cities, they may even be able to suggest the sources or causes of those fears. Other questions, however, will remain largely unanswered. The cross-sectional survey design is sometimes referred to as the "snapshot approach," because although the single survey can provide a momentary, representative portrait of a population, it cannot trace the processes of change.

LONGITUDINAL DESIGN. The more suitable procedure for studying the processes of change is the longitudinal survey design in which a survey is repeated several times in order to measure the rate and degree of change occurring in patterns of response. As noted in Chapter 2, one type of longitudinal design, the Trend Study, consists of several successive surveys, each based on a different sample of subjects. Each sample is independently drawn, at regular intervals, from the same general population. Gallup polls are conducted in this way, and comparisons of the results of several different polls can be quite useful for analyzing trends. A single poll indicating that 62 percent of American people expect the economy to get worse before it gets better would probably be interpreted pessimistically. But if a trend analysis indicated that only three months earlier 82 percent of those polled felt the economy was going to turn downward, the later finding might be interpreted more optimistically.

Although our ability to study processes of change is greatly enhanced by the trend study, one major limitation of this design seriously reduces the reliability of measured differences that appear between surveys based on separate samples. In such studies changes in patterns of response from one survey to the next arise in part from real shifts in behavior or sentiments and in part from sampling variations. Neither the amount of sampling error in a survey nor its effects on the figures that the survey produces can be assumed to be equal or constant from one survey to the next. Suppose a trend study of attitudes toward work requirements for mothers on welfare showed a decline from 50 percent supporting work as a requirement in 1970 to only 25 percent supporting the same policy in 1980. How reliably can we conclude that these figures that support "workfare" has been cut in half in a decade? The answer to this question depends on the amount of sampling error that occurred in each survey. It is entirely conceivable that sampling fluctuations inflated the 1970 figure, deflated the 1960 figure, and produced an apparent difference much larger than any shift that may have actually occurred. Indeed, there is a tendency in trend studies for the analysis's attention to be drawn to shifts that are abnormally large or small. Unfortunately, these deviations, which may be the most interesting results, are often heavily influenced by sampling error.

Panel Studies. The panel study is a longitudinal design devised specifically to minimize the effects of sampling error. A sample, or panel, is chosen, and that
same group of respondents is resurveyed at selected intervals. Thus, the later responses of any subject or category of subjects, or of the sample as a whole, can be directly compared to responses given at an earlier time. The measures of change that are produced by such a design are highly reliable.

A classic example of a panel study is found in The People's Choice, by Lazarsfeld, Berelson, and Gaudet (1944). Six hundred residents of Erie County, Ohio, were interviewed once a month between May and November of 1940 about how they intended to vote in the upcoming presidential election. The investigators were particularly interested in charting the factors that voters weighed before making their eventual choice.

Besides eliminating the problem of variations between successive surveys due to sampling error, the panel study has another distinct advantage over other longitudinal survey designs: the sheer volume of information that can be collected from each respondent. The time during which a volunteer subject can be expected to remain cooperative and attentive is limited, and a great deal of that time is usually devoted by the researcher to collecting necessary background information (age, race, gender, income, education, etc.). Thus, the limits of comprehensive coverage of relevant topics are fixed by the average respondent's tolerance and attention span. In panel studies, however, there is no need to repeat background questions after the initial interview, so subsequent contacts with subjects can focus progressively more attention on issues at the heart of the inquiry. Moreover, the data accumulated in the successive interviews, when considered as an overall record of an extended investigation, are more detailed and comprehensive than could ever be produced from a single contact. Since Lazarsfeld introduced the technique, the panel—because of its usefulness for predicting outcomes and because of the relative detail and accuracy with which it recreates patterns of persuasion and decision-making—has become a standard tool in the study of voting behavior.

Panel studies are not without their disadvantages and limitations. The sheer cost of repeatedly conducting the same survey creates pressure upon the researcher to restrict the size of the initial sample, and as a consequence, the sample's representativeness is restricted as well. This problem is magnified by the inevitable loss of some subjects before the study has been completed. Remember that the longer the study design, the more probable it is that some respondents will lose interest, move without leaving a forwarding address, or die. Some of the problems typical of panel studies are found in the Survey Research Center's Panel Study of Income Dynamics (1972), which involved personal interviews in 5,000 households over the spring of each year from 1968 to 1972. The study yielded detailed information about various sources of income, and that information has been applied to many research questions, including studies of the characteristics of those moving into and out of poverty. But although a great effort was made to avoid sample loss, only 62 percent of those in the original sample remained at the end of five years.

PLANNING A SAMPLING STRATEGY

The strengths and weaknesses of alternative sampling methods have already been discussed in detail in Chapter 5. These are of central importance to survey research. In general, probability sampling is desirable. But quota sampling is widely used by commercial pollsters because it is less expensive than other options. The choice of a sampling strategy is most often determined by: (1) available funds, (2) the numerical and geographical scope of the survey, (3) the availability of an adequate sampling frame, and (4) the method chosen for collecting the data.

When data are being collected by mail or by telephone, it is often possible to do simple random sampling, or even stratified sampling, for no more than the cost of a less complex sampling method. If data are to be collected through personal interviews, however, methods that involve individually selecting and contacting each subject can consume large amounts of time and money. Funds thus devoted to locating subjects are no longer available for other aspects of the research, and the increased cost per interview may seriously restrict the size of the final sample. These concerns become more and more critical as the geographical dispersion of the target population increases. If the Social Security Administration were to draw a simple random sample of Social Security recipients for personal interviewing, the travel costs involved in locating subjects would far exceed all other expenses. It is for this reason that national surveys rely on complex, multistage combinations of stratified, quota, and cluster sampling techniques.

The type of probability sample most widely used in survey research is cluster sampling, in which a sample of groups (clusters) is drawn before individuals within them are identified and selected. If, in a given survey, clusters are represented by neighborhoods, travel time and expense may be minimized, for interviews could be conducted in concentrated areas, not in households scattered throughout the city. As the area to be covered increases, so also does the potential savings to be derived from the use of a multistage cluster design.

Whatever type of sampling strategy you choose, it must involve vigorous and successful efforts to contact and gain the cooperation of as many members of the sample as possible. Nonresponse is a plague that can ruin any survey, and it must be minimized. Individuals not at home during a door-to-door survey should be followed up by telephone, by mail, or in person. More than one call-back is often necessary for that small percentage of subjects who are most difficult to reach, until arrangements are finally made to complete the interview. Similar and equally persistent efforts are necessary in phone or mail surveys.

Despite the researcher's best efforts, surveys nearly always fall short of the ideal of 100 percent cooperation, although some do achieve response rates of 80 percent or better. Hence the question inevitably arises, "At what point can a rate of response be considered adequate?" Unfortunately, there is no simple or direct answer to this question. A low response rate can occur for a variety of reasons, and does not necessarily render the sample unrepresentative. It does, however, cast a shadow over the results of the research, and it transfers the burden of proof to the researcher to demonstrate that the sample remains representative and unbiased despite the low rate of response. For this reason whenever adequate data are available, it is wise to compare the characteristics of respondents to those of nonrespondents. If the two groups from the sample can be shown to be similar in important respects, confidence in the representativeness of the respondents is greatly enhanced.

9Most reports on the Income Dynamics data that have been published thus far have been based on data collected up to 1972. The study continues, however, and as is characteristic of longitudinal surveys, there is no need to terminate ongoing data collection as long as the results justify expenditures.
CHOOSING A DATA GATHERING TECHNIQUE

Researchers may collect data from subjects through face-to-face interviews, through telephone contacts, or through self-administered questionnaires. All three approaches allow the same options for the kinds of information that can be gathered. What varies is the degree of personal contact used to elicit the data.

Self-administered questionnaires. Self-administered questionnaires, whether distributed to a captive audience (as in a classroom) or distributed through the mails, are the least costly data gathering technique, for no interviewers are needed. This technique has the added advantage of allowing respondents as much time as they require to consider each question carefully before answering. There is no pressure to produce an immediate reply, as there often is perceived to be in an interview, and there is not likely to be any embarrassment regarding sensitive questions. Some respondents feel more comfortable about expressing their honest reactions to questions on sensitive topics (such as sex, politics, or religion) on a questionnaire than they do in an interview. These advantages, particularly the relatively low cost involved, make the self-administered questionnaire one of the most popular methods of social research.

The major disadvantage of self-administered questionnaires is their tendency to inspire only a low degree of enthusiasm and involvement in potential respondents. Unstructured questions that require serious consideration (for example, “What do you think the government ought to be doing about the energy crisis?”) seldom elicit more than perfunctory replies. Hence self-administered questionnaires rely heavily on items that offer predetermined response alternatives and thus can seldom probe issues in any real depth. Worse yet, the most typical reaction to a mail survey is to throw it away! The rate of response to mail questionnaires is considerably lower than that for either face-to-face or telephone interviews. Although homogeneous populations tend to be fairly responsive, when a cross section of the population is surveyed by mail, return rates of 10 percent or less are common.

The prevailing low rates of return for self-administered questionnaires may stem from subjects’ unwillingness to reply and also from their inability to reply. A skilled interviewer can help almost any subject through a set of questions, but “for purposes of filling out even simple written questionnaires,” it has been estimated that “at least 10 percent of the adult population of the United States is illiterate. For complex questionnaires, the percentage would undoubtedly be considerably higher” (Seltzer et al., 1976). The most carefully selected sample is unlikely to remain cross-sectionally representative if only a small fraction of those sampled choose to reply.

The self-administered questionnaire also transfers a great deal of control from the researcher to the subject. If some subjects fill out their questionnaires hastily or without reflection, or if some subjects seek the aid of friends or family members, the researcher has no way of detecting or controlling these disturbing influences — no way even of estimating their effects.

Face-to-face interviews. The best data gathering technique for survey research, if the interviewers are well trained and the substantial expense involved can be met, is the face-to-face interview. Face-to-face interviews allow the researcher to collect data from a much larger percentage of those sampled than is usually possible with self-administered questionnaires. Subjects tend to be more impressed with the seriousness of a study when the researcher contacts them personally than when they receive a form letter and questionnaire through the mail. Personal contact may make an interview seem far less routine and standardized than it actually is. It is also far more difficult for a subject to refuse an interviewer in person than it is to delegate a questionnaire to the wastebasket.

The presence of an interviewer can also improve the quality, as well as the quantity, of responses from each subject. If a subject does not understand a question, the interviewer can clarify its meaning. If a respondent’s answer seems not to fit the intent of the question, the alert interviewer will seek clarification through the use of a probe — asking, for example, “Could you explain exactly what you mean by that?” Such probes can both clarify and add depth to the information the respondent is providing. A trained interviewer also heightens the validity of the data by detecting and weeding out insincere respondents and obviously false replies.

Telephone surveys. Less expensive than face-to-face interviews, telephone surveys avoid most of the problems that can arise when mailed questionnaires are used and, within certain limits, can meet a wide variety of research needs quite effectively. Telephone interviews generally cost less than half as much as the same number of face-to-face interviews, and the increasing availability of toll-free telephone service is further reducing costs while extending the useful range of the telephone survey. Researchers with very limited resources often find it within their means to conduct regional, statewide, or even national surveys by telephone. Because in a telephone survey all contacts can be made from a single location, the researcher is better able to monitor the quality of work done by hired interviewers.

Early telephone surveys developed an unfortunate reputation for sampling bias because some categories of respondents tended not to have telephones, while others tended to have unlisted numbers. The potential for such bias, however, has greatly diminished in recent years. The telephone has become so standard an item that the poor are no longer necessarily underrepresented (except, perhaps, in rural areas). In fact, in some inner-city neighborhoods plagued with high crime rates, potential subjects of face-to-face interviews may pretend that they are not home or refuse to let the interviewer in because of their fear of strangers. The biases incurred by this refusal to cooperate may often be far greater than the bias created by missing those individuals who have no phone. As a result phone surveys can sometimes better represent the poor than door-to-door surveys.

People who have unlisted telephone numbers can be reached through the technique known as random-digit dialing. If the researcher knows the exchanges (the first three numbers) in the areas under study, the last four digits can be chosen by a random method, and all telephone numbers, listed or unlisted, will have an equal chance of being dialed.

The major limitation of telephone surveys is the length of time involved in a telephone interview. A contact that will run more than fifteen or twenty minutes may be refused or prematurely terminated by the subject. This reduces the amount of information that can be gathered to between one-third and one-half of the data usually collected in a face-to-face interview. Questions must also be kept fairly simple, since no written lists or illustrations can be displayed as aids to the subject’s understanding. On balance, however, if the topic of your research is
relatively brief and straightforward, the telephone survey may prove an accurate, representative, and cost-effective option.

FORMULATING QUESTIONNAIRE ITEMS

All three data gathering techniques (through the mail, face-to-face, and by telephone) are based on a set of questions to which subjects are asked to reply. The formulation of measures for concepts—specifically, the transformation of research objectives into carefully chosen questions—is one of the most important steps in the survey research process. In this section the types of questions most often used in surveys and the general rules for determining the form in which these questions are to be presented to the subject will be considered.

**Question Content.** In general, the content of specific questionnaire items should be determined by the goals of the research project. Questions should be as direct and as relevant to research objectives as possible. There are four types of data that are most often sought in surveys: (1) information about the respondents' background, (2) information about their activities (past and present behavior and experiences), (3) information about their knowledge, and (4) information about their sentiments (opinions, values, attitudes, and feelings).

Background questions are designed to elicit respondents' personal history and current situation (sex, race, income, religion, marital status, age, education, ethnic group, and so on). Usually, these data are gathered in order to check the representativeness of the sample and in order to enable the researcher to make statistical comparisons of respondents' categories (men/women, old/young, and so forth) with regard to variations in their patterns of response to other questionnaire items. Though these questions are both necessary and basic, some subjects may feel that they are embarrassing or too personal. This reaction can be minimized if the interviewer reads the questions carefully and waits to ask them until a degree of understanding and rapport has been established with the respondent. It is often helpful for the interviewer to explain why the questions need to be asked and to remind the subject that all responses will be kept in confidence.

By the same token, questions about a person's activities and experiences can seem too personal unless the respondent sees them as justified. Instead of apologizing for questions, or unduly calling attention to their somewhat personal nature, you may find it most effective to simply phrase and organize them in ways that make their relevance to the stated purposes of your research apparent. A subject should never have to wonder, let alone ask, what bearing a question has on the objectives of the research.

Along with being manifestly relevant, questions should always be as specific as possible. The following item is designed to elicit information about respondents' voting behavior:

**How often do you vote in national elections?**
1. Always
2. Often
3. Seldom
4. Never

The question is worded clearly, but it is very general. A more specific question would ask:

**Did you vote in last month's national election?**
1. Yes
2. No

The more specific question could then be followed by another:

**In how many of the last five national elections have you voted? (Indicate the number, from 1 to 5, in which you cast a ballot.)**

What are the advantages of the second scheme? First, since it is a general preamble, American civics that every responsible adult citizen ought to vote, many more people feel they should vote than actually do vote. The first question almost invites the occasional voter to magnify his or her civic image by liberally interpreting the word *often*. The second scheme, on the other hand, first ties honest respondents (as most are) to the memory of their most recent vote or nonvote, and then poses a more general question in a way that elicits from the respondent a very definite answer. Also, asking about the last five national elections, instead of asking about national elections in general, reflects a more reasonable view of the limits of the respondent's memory. Moreover, the responses that will result from the second scheme will convey a great deal more information: the percentage of people who say they voted in three or more of the last five national elections is a much more meaningful, definite, and interpretable finding than the percentage of people who say that they vote "often" in such elections.

Questions about a person's sentiments are probably the most common items found on questionnaires. Views about the future of the nation's economy, attitudes toward abortion, beliefs about the poor, opinions regarding law enforcement and the court system, evaluations of the president's performance, and similar public and private sentiments are the staples of survey research. But such questions can be misused or overused if the objectives of the research are not kept in mind constantly while the individual questions are being framed. Before you decide to ask an attitude question, be certain that you are really most interested in what the subject feels. Beginning researchers sometimes mistakenly ask a person's opinion when the research design would be better served by asking what a person knows or how a person acts. As a rule, questions should be framed so that data do not become more subjective than they need to be. Remember also that subjects are less likely to consciously or unconsciously misrepresent facts about their behavior than they are to idealize their inner and verifiable attitudes and preferences. Questions concerning attitudes are most effective when they are related to concrete realities by being combined with questions concerning behavior.

Questions concerning knowledge are asked sometimes for their own sake and sometimes for use as a screen to determine which respondents have sufficient information on an issue to provide meaningful opinions. Consider the following question (Davis, 1977:128):

**Have you heard or read about the recent U.S. Supreme Court decision concerning abortion?**
1. Yes
2. No
This question, aside from its intrinsic content, could be used to screen people before deciding to ask them whether they agree or disagree with the position of the U.S. Supreme Court regarding abortion. Surprisingly, many respondents will automatically agree or disagree with things they know nothing about rather than admit ignorance on an issue. Questions should be carefully worded to avoid the implicit assumption that “everyone knows and should have an opinion,” thus making it easier for respondents to gracefully withhold uninformed comment.

Sometimes, rather than merely testing knowledge, a question can convey information to provide the respondent with a context for expressing an opinion. Consider the following example (Davis, 1977:90):

The U.S. Supreme Court has ruled that no state or local government can require the reading of the Lord’s Prayer or Bible verses in the public schools. What are your views on this—do you approve or disapprove of the Court’s ruling?
1. Strongly approve
2. Approve
3. No opinion/neutral
4. Disapprove
5. Strongly disapprove

This question has the advantage of assuring that all respondents will share a minimum factual background, which improves their competency to answer. The content of questions should never be treated as obvious or predetermined. Content is as much a function of what the subject perceives as it is of what the researcher intends. Hence, in deciding exactly what to ask respondents, always keep in mind: (1) your own intentions, (2) the impression a question is likely to make on subjects, and (3) the response motivations (particularly the desire to appear knowledgeable and to express the “right” opinion) your questions are likely to arouse.

**Multiple Indicators**. Questionnaire items should be thought of as indicators of the constructs that underlie the research design. As such they can at best only roughly reproduce the ideas the researcher has in mind. This is especially true of items that deal with matters of subjective disposition and of items that measure complex and abstract concepts. Because of this, questionnaires frequently contain several closely related items that are all intended to measure a complex or subtle concept from different angles and in slightly different ways.

Let us look again at anomie, a sense of isolation in a world without guiding values. Though the concept of anomie may be clear, ways of measuring it are not so clear. As a composite measure of anomie, survey researchers usually devise a series of related questions (multiple indicators) such as those in Table 6.1.

It is unlikely that any one of these questions alone could serve as a valid and reliable indicator of anomie, because several factors probably affect each person’s response to each question. The overall pattern of responses to the group of related questions may be substantially more accurate and dependable as an indicator of anomie. Thus the use of a series of related questions to produce multiple measures of a single concept has become a regular and important part of effective questionnaire construction.

### TABLE 6.1 Multiple Indicators

<table>
<thead>
<tr>
<th>Please indicate whether you agree or disagree with each of the following statements:</th>
<th>Survey Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. You sometimes can’t help wondering whether anything is worthwhile anymore.</td>
<td></td>
</tr>
<tr>
<td>a. Agree</td>
<td></td>
</tr>
<tr>
<td>b. Disagree</td>
<td></td>
</tr>
<tr>
<td>2. To make money, there are no right and wrong ways anymore, only easy ways and hard ways.</td>
<td></td>
</tr>
<tr>
<td>a. Agree</td>
<td></td>
</tr>
<tr>
<td>b. Disagree</td>
<td></td>
</tr>
<tr>
<td>3. Nowadays a person has to live pretty much for today and let tomorrow take care of itself.</td>
<td></td>
</tr>
<tr>
<td>a. Agree</td>
<td></td>
</tr>
<tr>
<td>b. Disagree</td>
<td></td>
</tr>
<tr>
<td>4. It’s hardly fair to bring a child into the world with the way things look for the future.</td>
<td></td>
</tr>
<tr>
<td>a. Agree</td>
<td></td>
</tr>
<tr>
<td>b. Disagree</td>
<td></td>
</tr>
<tr>
<td>5. Most people don’t really care what happens to the next fellow.</td>
<td></td>
</tr>
<tr>
<td>a. Agree</td>
<td></td>
</tr>
<tr>
<td>b. Disagree</td>
<td></td>
</tr>
</tbody>
</table>


**Structured Versus Unstructured Questions.** There are two kinds of questions used in questionnaires: structured (closed-end) questions and unstructured (open-end) questions. Structured questions provide a set of fixed alternatives from which the respondent must choose a reply. The following example is adapted from Davis (1977:78):

Would you favor or oppose a law that would require a person to obtain a police permit before he or she could buy a gun?
1. I would favor such a law.
2. I would oppose such a law.
3. I have no opinion on the issue.

Structured questions are relatively easy to answer, and the responses are easy to code and record as data. If the researchers know what they want from the question and can anticipate most or all of the ways in which respondents will be inclined to answer, structured questions are both efficient and appropriate.

Unstructured questions permit respondents to answer as they see fit, and encourage free and lengthy discussion.

What, in your view, would be the major advantages or disadvantages of a strict gun-control law?

Substantial space must be left for the respondent to write an answer to the
questions or for the interviewer to record as much of what the respondent says as possible.

Unstructured questions are most useful when researchers expect an issue to provoke a wide range of responses or when responses are likely to be quite detailed. But such questions should not be mistaken for, or substituted for, the kind of involved exploration and probing that characterizes intensive interviews—a wholly different research method. Nor should they be expected to produce revealing or provocative, in-depth responses. In fact, heavy use of unstructured questions can lead to great disappointment, for respondents will frequently either neglect to respond to such items or provide only brief, superficial answers.

In interviews, when open-end questions fit more naturally into the conversational atmosphere, they can be quite useful as general introductions to subjects that the interviewer will later probe with more specific, structured queries. In this situation the unstructured question helps to create a proper context for the line of inquiry that is to follow by encouraging the respondent to sort out ideas and feelings and to establish a clear frame of reference.

**QUESTION WORDING.** Questions should be worded in the most concise and direct way possible, avoiding both technical jargon and patronizing overelaboration. The meaning of every question must be clear to all respondents. Never assume that vocabulary common among social scientists will have meaning for any other group, let alone for all the individuals represented in a cross section.

Let us examine the following questionnaire item:

**Do you favor or oppose the current effort to reduce taxes by making government more accountable and less wasteful?**

1. Favor
2. Oppose
3. No opinion

The wording of this question violates several important standards of research practice. First, it is **loaded:** it is so biased that a respondent would find it difficult to oppose a "tax revolt" in these terms. Questions are loaded or slanted whenever their wording even subtly suggests that one response is preferable to another. The question is also not **one-dimensional:** it presents the subject with more than one single issue to respond to. In this case people who favor making government "more accountable and less wasteful" (laudable goals that no responsible citizen could oppose) but who do not favor tax cuts are placed in a dilemma by the wording. Complex questions, often requiring involved responses do not fit well within the limits of survey techniques, especially the limits of the self-administered questionnaire. If complex issues are to be studied by means of a survey, they must first be broken down into a series of one-dimensional questions.

Slanting can also occur, despite neutral wording of the question itself, if the fixed responses presented to the subject do not cover the entire range of potential replies. Here is an example:

**How many politicians do you think are a little bit corrupt?**

1. All
2. Most
3. A few
4. None

Although the range of possible reactions seems to be covered, how should someone reply who believes that the great majority of politicians are much more than "a little bit" corrupt? The researcher has put the respondent into the strange position where the reply "none" is most logical and truthful but least likely to convey what the subject intends.

As mentioned in Chapter 3, the responses to any closed-end question must be mutually exclusive and exhaustive. In addition, a respondent should not be able to skim through a questionnaire, blissfully agreeing or disagreeing with everything in sight. Instead, "agree-disagree," "yes-no," or "favor-oppose" choices should be interspersed with other sets of response options that restate the substance of the question.

Look at the following item:

What connection, if any, exists between your present job and your college education?

1. I work at the specific career for which I was trained.
2. The work I do is related to my major field.
3. Though not directly related to my major field, the work I do draws on my college education.
4. My work is unrelated to my college education.

Now compare the wording of that question with the wording of the one that follows:

How related is your present work to the education you received in college?

1. Closely related.
2. Somewhat related.
3. Unrelated.

Although both questions are of similar intent, the first version repeats the substance of the question in the responses. This helps to elicit more specific and informative data by directing the respondent to consider the question more carefully. The "contentful" response format also counteracts the tendency of some subjects to respond agreeably or disagreeably (according to their general dispositions, irrespective of the issues being addressed) in a patterned and unreflective way.

Another strategy that counters yes-saying (a pattern of agreement) and no-saying (a pattern of disagreement) is the use of contradictory questionnaire items. As Table 6.2 illustrates, the respondent cannot simply agree or disagree with all statements without demonstrating gross inconsistency.

**CONSTRUCTING THE QUESTIONNAIRE**

The principles of questionnaire construction remain fairly constant, whether it is being prepared for self-administration or as a "schedule" to guide the interaction between interviewer and subject. Both form and content must be considered, especially when subjects have only the printed questionnaire as a guide. Seemingly minor details regarding the organization, phrasing, and order of the questionnaire items, and the recording of responses, can make the difference between a successful research effort and a quagmire of confusion and frustration.
TABLE 6.2 Balancing Agree-Disagree Items

1. Since our society still expects a husband to be the breadwinner for his family, married men ought to be given hiring preference when seeking a job.
   a. Strongly agree b. Agree c. No opinion d. Disagree e. Strongly disagree

2. Men and women should receive equal pay for equal work.
   a. Strongly agree b. Agree c. No opinion d. Disagree e. Strongly disagree

3. Women should take care of running their homes and leave the world of work to men.
   a. Strongly agree b. Agree c. No opinion d. Disagree e. Strongly disagree

4. No employer should be allowed to discriminate against women by hiring less-qualified men.
   a. Strongly agree b. Agree c. No opinion d. Disagree e. Strongly disagree

INTRODUCTION. Every questionnaire should have an introduction that explains what the study is about in a way that captures the attention of potential respondents, impresses them with the importance of the study and their participation in it, and assures them that all data will be handled in a way that protects their identity. If the study can be linked to a sponsor known and trusted by members of the target population, identification of the sponsor in the introduction can have dramatic results on the rate of response. Presenting a survey as a “class project,” for example, is generally less effective than identifying it with the college or university in which that class project is being conducted. The tone of the introduction should be serious, in order to encourage potential subjects to treat the questionnaire seriously and respond to the items conscientiously. The tone of the introduction must also be neutral. If controversial issues are to be covered in the questionnaire, nothing in the introduction should give the respondent the impression that the researcher advocates a particular attitude or is interested in eliciting a particular set of opinions. On the contrary, subjects must be impressed with the researcher’s sincere desire that they express their own ideas, lest they instead express views intended to be agreeable to the researcher.

INSTRUCTIONS. Instructions prepared by the researcher for an interviewer may be quite elaborate, with several pages of general guidelines separate from the interview schedule and with many specific guidelines and reminders interspersed throughout the schedule. The guidelines for a self-administered questionnaire should be much simpler. It should include a very clear explanation of how responses are to be indicated; by checking, by circling, or by other means. The respondent’s attention should be drawn to any questions that require or allow more than one response. Also, if the questionnaire contains some items that pertain only to a subset of the respondents, the rest should be explicitly directed to omit the items to which they are not expected to respond. In the absence of explicit instructions, subjects will often improvise, but improvisation does not promote uniform, interpretable data.

SEQUENCE OF QUESTIONS. Since questionnaires are of no use unless subjects are willing to fill them out, the researcher’s initial aim must be to capture the potential respondent’s attention. In an interview situation, where there is the additional necessity of developing rapport between interviewer and respondent, opening questions should also be general, nonthreatening, and easy to respond to. The body of the questionnaire should consist of questions on a progression of topics, following some logical pattern that the respondent is likely to recognize and that will facilitate an orderly interchange between interviewer and subject. Sometimes the very nature of the material to be covered by the questionnaire suggests the best method of organization; at other times only trial and error can determine what pattern will most facilitate rapport and easy interchange. If necessary, alternate schemes can be evaluated when preparing (see page 143) the questionnaire to iron out any minor problems it may contain.

When dealing with questions on the same topic, most researchers prefer to organize their queries from the more general items to the more specific. A series of questions on “issues of the day” might begin with a general item:

What, in your view, are the most important issues facing the American people today?

This might then be followed by a more specific “issues inventory”:

Here is a list of ten issues and concerns currently facing the United States. We would like to know which of these you consider the most important and which seem to you the least important.

(list of issues follows)

The respondent might then be guided by the interviewer to rank all issues from 1 (most important) to 10 (least important). If the general question is intended to encourage the respondent to identify important issues other than those listed in the inventory, it must precede the more specific one. Otherwise, the answer to the general question will tend to mirror the issues identified on the researcher’s list and will be likely to generate redundant data.

Finally, sensitive questions should be reserved for the end of the questionnaire. By this time the subject is used to replying and probably feels at ease with the interviewer. Careful wording, which makes personal questions seem less obtrusive and offensive, can greatly increase the rate of response. Let us compare these two items:

Unemployment has been steadily increasing in the United States for the past two years. During this time have you yourself been affected by this growing problem?

At any time during the past two years have you lost a job or been laid off?

The second question would probably stimulate a less open and frank exchange than the first. Surveys, unlike cross-examinations, do not seek a confession. They must respect, appreciate, and foster the goodwill of those respondents kind enough to give their time and share their experiences.

LAYOUT AND RESPONSE FORMAT. When a questionnaire is to be self-administered, the layout of questions and response alternatives on the printed page can seriously affect the ease, accuracy, and completeness with which subjects re-
spond. Questions should be spread out evenly on the page, with sufficient blank space between them for subjects to note easily where one item ends and another begins, and to enable subjects to comment fully on all questions. This is especially important for items with subparts, for items with special instructions, and for filter items that are to be answered by only some of the respondents. Careful layout helps to minimize two problems: (1) subjects' failure to respond to questions intended for them, and (2) subjects' tendency to respond inappropriately to questions because they have misunderstood them or because they did not realize that the questions were not intended for them.

The mode for indicating responses should be consistent throughout the questionnaire, and should be made clear to respondents at the outset. It is helpful to include a sample question with the appropriate response clearly and properly marked. The absence of explicit instructions will lead subjects to improvise often in strange and undecipherable ways.

Respondents can be directed to record their answers in a variety of ways:

Please indicate your gender.

- Male [ ]
- Female [ ]

The third alternative, that of circling a number that stands for the correct response, has the advantage of indicating simultaneously what the subject's response is and how that response is to be coded for data processing. This eliminates an error-prone intermediate step in the transfer of responses to punched data cards.

When a filter or confirmatory question is used to identify a subgroup of respondents for further questioning, explicit instructions should direct subjects to the next item they are supposed to answer. The use of a page of a different color can help to isolate a series of questions intended for a specific category of respondents. Table 6.3 shows the use of arrows and special indentation and verbal instructions in the layout of a page.

Schemes in which one set of questions applies to one group of subjects and a different set applies to the remainder are very common in interview surveys, but they are considerably more difficult to build into self-administered questionnaires. As the contingency scheme becomes more complex, the chances increase for confusion on the part of the respondent. But the difference between a successful contingency questioning scheme and an unsuccessful one can often be a matter of proper physical layout.

When you design a questionnaire, it is wise to assume the worst—that many respondents will rush through it with much more motivation simply to be finished than to be thorough and accurate. If you word the questions and design the layout so as to politely but effectively focus the respondent's attention, the resultant data will be much more useful and informative.

Response formats on interview schedules are usually similar to those on self-administered questionnaires, although issues of style are not as crucial when the answers are being recorded by a trained interviewer. Sensitive or personal questions, however, do pose a special problem for the interviewer. To minimize uneasiness or embarrassment in subjects, the response choices to questions such as "Could you indicate which of the following income ranges your earnings for last year fall into?" are often printed on a card that the interviewer hands to the subject when asking the question. The respondent can simply indicate to the interviewer the appropriate category (by its code number) without actually talking about the sensitive topic.

**PRETESTING.** No amount of care and planning can ensure that the questionnaire will have the intended effect in all respects. For this reason the assumptions and judgments that go into questionnaire design should be tested before the actual survey begins. A PRETEST involves drawing a very small sample of subjects, conducting interviews or administering a questionnaire, and noting all the problems that arise for the interviewers and for the subjects. The subjects should be encouraged to comment freely about the questions themselves, as well as about the issues they address. In effect, an interview takes place within and about that interview. The pretest often suggests necessary or desirable changes in wording, format, or layout; identifies ineffective questions that should be deleted; and sometimes uncovers new issues to which additional questions should be addressed. If hired interviewers are being used, the researcher should also solicit their reactions during the pretesting phase.

**Survey Execution**

After the plans have been formulated and the pretest has been conducted, a number of problems may arise in carrying out your survey. In this section we shall concentrate on the major difficulties associated with implementing research using either self-administered questionnaires or interviews.
THE SELF-ADMINISTERED SURVEY

The main problem associated with self-administered surveys is their characteristically low rate of return. Questionnaires received by post are often mistaken for "junk mail" and ignored or discarded. Several techniques can be used to make mail surveys more appealing, thereby increasing the rate of response.

The introductory letter that accompanies the questionnaire should emphasize the importance of the research and appeal to the altruism of potential respondents. Such an appeal is realistic and, as many researchers have discovered, proves more effective than the suggestion that the subject has something to gain by participating. The inclusion of a "reward"—a pen or a small amount of money—also improves the rate of response, probably more because it is a token of the researcher's sincere appreciation than because of its intrinsic value.

The longer the questionnaire, the lower the response rate tends to be. Hence mail surveys must be restricted to essential questions. Perhaps because they seem less impersonal, preprinted, individually typed return envelopes produce higher return rates than do business-reply envelopes. Surveys that involve some personal contact, either at the outset or in later follow-ups of nonrespondents, show markedly better returns than those that rely exclusively on the mails.

Finally, and most important, mail surveys require aggressive and unremitting follow-up. Second and third mailings can often prod listless subjects into responding to and returning the questionnaire. Telephoning can be an effective way of reminding people that they have not yet filled out their questionnaire. If reminders have been sent and have received no response, a personal call can sometimes result in a successful telephone interview. Thorough follow-up campaigns can often increase the rate of response to a mail survey by as much as 50 percent.

Even if all these techniques for increasing the rate of response in a mail survey are employed, it is unlikely that more than 70 percent of the questionnaires will be returned. When between a third and two-thirds of the subjects in a sample do not respond, the researcher should attempt to evaluate the possibility that sample biases have been introduced by this process of "self-selection." Suppose a mail survey is sent to a random sample of students at your college and that 60 percent of the subjects return completed questionnaires. Information from the survey about the respondents' age, race, sex, and major can be compared to similar data about the composition of the entire student body. If this comparison shows no startling differences between the 60 percent of the sample who replied and the student body as a whole, weight will be lent to the contention that the respondents are representative of the entire group (although other important differences between respondents and nonrespondents may be undiscovered).

THE INTERVIEW SURVEY

Most interview surveys, depending on the size of the sample, require a team of interviewers so that no one person is burdened with an unwieldy or unduly protracted task. Whether the interviews are conducted by hired assistants or by a team of cooperating researchers (as in a class project), it is essential that the interviewers be consistent in their understanding of the schedule and in their manner of approaching and dealing with respondents. To ensure consistency and similarity among interviewers requires not only extensive discussion, common training, and practice, but also coordination and control by the chief investigator, who supervises the entire operation. The following discussion explores some of the major considerations and techniques that a chief investigator should emphasize and that interviewers should bear in mind and follow.

PREPARATION. All interviewers must thoroughly acquaint themselves with both the objectives of the study and the item-by-item content of the interview schedule. The interviewer should use the exact wording that has been set down for every question; however, he or she should not seem to be reading! A good interview is ideally a conversation between interviewer and subject, during which both feel at ease. For the interviewer, as for an actor, this means appearing spontaneous and at ease while rigidly adhering to a script. No one achieves this balance of ease and control without being thoroughly immersed in the intent of the research and in the execution of that intent.

Hired interviewers must be thoroughly prepared for their tasks; otherwise, their limited involvement in the overall project may lead to errors and misunderstandings that could undermine the quality of the data. Interviewers who are aware of the overall sampling strategy, for example, are less likely to succumb to the temptation to avoid approaching valid but inconvenient potential subjects (such as those who live on dark streets, who work at odd hours, or who live three flights up). Interviewers need to be impressed with the importance of procedural consistency and adherence to instructions. Group training of interviewers helps to ensure this consistency. Finally, interviewers, even more than respondents, must be convinced of the significance of the research project.

A manual of interviewer specifications, gleaned from past experience and from the results of the pretest, should accompany the questionnaire. The manual should include item-by-item instructions about what to do when faced with any conceivable contingency. Typical specifications include suggestions of ways to clarify the meaning of a question by explaining the meaning of its wording if a subject does not seem to understand it or asks for an explanation, and helpful probes that the interviewer can use to encourage the respondent who initially expresses no opinion on a question or who responds with "I don't know." In order to accommodate the variable statuses of respondents (for example, widows, single parents, the unemployed, members of minority groups), some slight rewording of questions may be necessary; in such cases the manual should specify exactly how the wording is to be modified.

DEVELOPING RAPPORT. Rapport between subject and interviewer depends upon a number of factors, including familiarity with the role being enacted. Since subjects are seldom experienced in the role of survey respondent, the interviewer must orient them and place them at ease. First, dress in a manner appropriate to the neighborhood in which you are conducting the interview, yet one that reflects the professional nature of your work. Establish your own identity. Show whatever credentials you have, so as to avoid being mistaken for a salesperson, a bill collector, or a potential burglar. If possible, interviewers should be matched with the average traits of their subjects so as to facilitate recognition and communication.

Once the interview is under way, it is important to convey a nonjudgmental attitude toward the subject and toward the subject's responses. With a series of
nods or brief verbal expressions of encouragement ("yes," "uh-huh"), you can let
the subject know that you are eager to hear and record whatever opinions are
offered. In doing this, however, you must be careful not to inadvertently encour-
age the respondent to offer "pleasing" replies; offer the same level of encourage-
ment whether you like or dislike what you hear.

Providing a Uniform Stimulus. In order for statistical comparisons between
the responses of different groups of subjects to have any meaning whatsoever, the
researcher must be able to assume that they all were asked the same questions in
the same way. This requirement dictates that all interviewers adhere to the exact
order and wording of questions as they appear in the interview schedule. It also
demands a degree of control over the tone of voice in which an interviewer asks a
question, since changes in inflection can substantially alter the subject's interpr-
etation of a question even though the wording is followed exactly. The question
"Do you sometimes drink more than you should?" would produce more admis-
sions if the word sometimes were emphasized than it would if the word drink
were emphasized. Practice and discipline help an interviewer to establish an
appropriate tone and to maintain it from one interview to the next.

Probing. In most instances questionnaires that have been carefully designed
and pretested will pose little problem for subjects. Questions should be asked slowly
and clearly; any misunderstanding can usually be dealt with by repeating the
item.

Since surveys may solicit a wide range of opinions and feelings from subjects, it
is not always sufficient for a question to be clear; it must also stimulate and
encourage respondents to express their personal views freely and fully. One of the
major advantages of the personal interview is the opportunity it affords the inter-
viewer to immediately evaluate the completeness of the responses. When con-
fronted with reticent subjects who, out of shyness or lack of confidence in the
worth or accuracy of their own views, claim to have no opinion or offer only short,
perfunctory, and uninformative replies to open-ended questions, the skillful inter-
viewer will use a variety of neutral probes to encourage fuller and more relevant
replies. Often a momentary pause can convey your expectation that the respond-
ent ought to have more to say. Simply repeating the subject's reply may bring
forth a good deal of elaboration. Brief, unloaded questions, such as "Could you
explain that a bit more?" "Could you elaborate?" "Any other reasons?" "Why do
you say that?" "Any other ideas on that?" can be very productive. Although some
subjects occasionally have no opinion to offer, many others simply need a little
time to work out their ideas on an issue, or a little encouragement to overcome
their hesitation about offering their opinions. Lack of assertiveness on the part of
a subject should never be taken for lack of a point of view, and the artful use of
probes may help to compensate for the subject's reticence.

Recording Responses. Most interviews involve a mix of closed-end and open-
end questions. Recording the replies to closed-end questions is usually a simple
and straightforward matter. But recording the replies to open-end questions can
be quite a challenging task. You should make every attempt to record responses
verbatim, writing key words instead of whole sentences if necessary, but return-
ning to complete the record after the interview has been completed. Start to record
as soon as the subject begins to reply, looking up occasionally to maintain some
eye contact. Try to avoid distracting the subject or holding up the interview with
your note-taking, lest the conversational atmosphere be lost. When you use probes,
put them in parentheses in the record in order to distinguish your remarks from
those of the subject. Finally, when the interview is complete, conduct a careful,
item-by-item review to make sure you have recorded everything that was said
and to aid you in preparing a written summary of your overall impressions of
the interview. In the summary you should comment on the subject's general
attitude and cooperativeness, describe the setting of and circumstances surround-

Preparation data for processing

Even modest surveys generate enormous amounts of data. A 50-item question-
aire, completed by a sample of 500 people, will result in 25,000 separate pieces
of information that must be checked, recorded, and made relatively easy to
handle. The data must be represented in a form that will permit them to undergo
statistical manipulation and analysis. It is virtually imperative that the data be
made machine-readable; the processing of such a large volume of data can be
carried out efficiently and accurately only with the aid of a computer (or other
electronic data processing equipment). Both of these requirements are satisfied
by quantifying the data—transforming them into a series of numerical codes that
can be read, stored, manipulated and summarized statistically by machine. This
process of coding typically proceeds through several stages, from the preceding
of the questionnaire through the "cleaning" of the machine-coded information.

Preceding. Whenever possible, the best way to organize the processing of data is
to begin before the survey is actually carried out. Preceding, a procedure that
applies only to closed-end questions, involves two things: (1) attaching a numerical
code to each response alternative and (2) designating a location for every ques-
tionnaire item, where the coded response to that item will eventually be stored in
a data matrix. Codes are printed next to each possible response on the question-
aire, and the appropriate code is circled when the respondent answers the ques-
tion. Usually, the location of the column(s) where each coded response will later
be punched into a data card is also printed unobtrusively on the questionnaire.

The Data Matrix. Understanding the concept of a data matrix is the key to the
entire process of coding and recording data. A data matrix is an array of rows and
columns. The intersection of a row with a column forms a cell, or a location, in
which a single digit can be stored. Each cell has a unique address in the matrix
that can be identified by the number of the row and the number of the column
that intersect to form the cell. A data matrix is usually organized by assigning
each row to a different respondent and each question to a different column. When
the data matrix is organized in this manner, and all responses by all subjects have
been coded and entered, the matrix will consist of as many rows as there are
respondents and as many columns as there are questions on the questionnaire.4

4In actuality there are usually more columns than there are questions, since responses
to some questions need several columns in which to be properly recorded. Recording a
If you were to read across any row in the matrix, you would see (in coded form) all the responses given by one respondent to all the items on the questionnaire. If you were to read down any column of the matrix, you would see the responses given by the entire sample of subjects to a single question. Once data have been stored in this matrix form, it is relatively easy to describe the shape and content of the matrix to a machine and, simply by referring to the appropriate row(s) or column(s), to instruct the machine to locate and analyze specific parts of the data. Note that the first few columns of a data matrix are usually reserved for an **index column**. This number, which is also recorded on the original questionnaire, can subsequently be used to match any row of data to its source.

**Coding.** As soon as the interview is finished or the completed questionnaire returns by mail, it should be reviewed for completeness and edited to make sure that all questions have been answered properly. Sometimes spaces left blank on the questionnaire can be filled in on the basis of information provided on other questions. A person who fails to indicate his or her employment status but who lists an income of $0 can safely be categorized as having no paid job. If a person has skipped or refused to answer certain questions, the editor should enter a “missing data code,” a number that signifies the absence of valid data and that the computer will later be instructed to treat separately from other codes. When the editing is finished, there should be some code to be entered into every address in the data matrix.

Open-ended items cannot be coded; coding can occur only after the data have been collected. The categories into which responses are to be coded must be established by closely examining what the respondents actually had to say. This procedure is almost identical to the one described in Chapter 11 on content analysis (to which the reader may refer for more detail). In brief, the researcher reviews a sample of the verbal responses to an open-ended question and decides how many different kinds (categories) of responses exist. Each category must then be defined and illustrated with a concrete example, and a numerical code attached to it. Once this coding scheme has been settled, the full set of verbal responses can be reviewed one at a time and recorded as a compact series of numbers. Since a great deal of judgment is often involved in this translation of words into numbers, accepted practice dictates that at least two people independently code the entire set of responses and their judgments be compared so that differences can be resolved and consistency of coding can be achieved.

**Preparing a Codebook.** As soon as all decisions about coding have been made, a codebook should be prepared to serve both a guide to and a record of the coding process. The codebook contains instructions for the transfer of all data from the questionnaire to some other medium (codesheets, punch cards, magnetic tape). For every questionnaire item, the codebook contains the number of the column(s) in the data matrix assigned to that item, the exact wording of the question, each legitimate response, the numerical code for each legitimate response, and the code used to signify missing data. It may be sufficient to state only once the six-figure income requires six columns. A series of columns reserved for the recording of one large piece of information is called a field, and each question must be allotted a field wide enough to accommodate the largest code number you plan to use to record any response to the question.

**Figures 6.1 A Punched Data Card**

A general rule for coding missing data, to be followed consistently throughout the transfer of data from the questionnaire to the data card. A common practice is to indicate missing data with the largest number that will fit in the cell(s) corresponding to that item (i.e., the number 9 or a series of 0s).

**Keypunching.** Once the codebook has been prepared and the questionnaires have been edited, data are usually transferred to codesheets, lined sheets resembling graph paper that have been designed to accommodate a data matrix. Since errors can occur in the transfer, it is essential that every line of code entered on a codesheet be checked at least once against the original record (the questionnaire). Sometimes an interview schedule can be laid out in such a way that all codes appear conveniently in the right-hand margin; when this is done, it is possible to dispense with codesheets altogether and go right to the next step, making the data machine-readable by transferring it to punch cards (Figure 6.1), using a keypunch machine.

Punch cards contain eighty columns. A single digit can be punched into any column. Numbers of more than one digit must be punched into adjacent, consecutive columns (forming a multiple-column field). Columns may be left blank between separate items of information, although this practice is not necessary. The most important thing to remember when keypunching is to verify constantly that you are punching the data into the correct columns.

The complete set of responses made by a single subject is referred to as a record, and the representation of these responses as a single row of codes is called a **logical record**. Logical records will very often exceed the maximum eighty columns that are available on a blank data card. Hence punching must continue on subsequent cards, and several cards may be needed to represent a single logical record. When this happens, each card must repeat the identification number in its first few columns and must also bear a card number indicating which portion of the logical record is contained on that card. These two identifiers are usually the first two items punched into each card.

In some research settings an alternative data processing technique is used in which data are recorded on magnetic tape for reading by the computer.
TABLE 6.4 A Priced Questionnaire

SOCIAL AND POLITICAL PRIORITY: A SURVEY

Identification Number ____________ (1-4)

Please answer all questions in this survey to the best of your ability. Remember, there are no right or wrong answers or opinions; in all cases we just want to hear your own personal opinion!

In most cases you can answer the question simply by circling the response that is true for you or that comes closest to your own opinion. Feel free to write in comments or explanations whenever you feel it is necessary.

1. There are a number of problems facing this country, none of which can be solved easily or inexpensively. The following is a list of some of those problems. Please consider each problem carefully, and then indicate whether, in your opinion, the government is presently spending too much, too little, or about the right amount to deal with the problem:

   a. To protect and improve the environment, the government is spending:
      (i) Too much
      (ii) About the right amount
      (iii) Too little

   b. To protect and improve the nation's health, the government is spending:
      (i) Too much
      (ii) About the right amount
      (iii) Too little

   c. To solve the problems of big cities, the government is spending:
      (i) Too much
      (ii) About the right amount
      (iii) Too little

   d. To halt the rising crime rate, the government is spending:
      (i) Too much
      (ii) About the right amount
      (iii) Too little

   e. To deal with problems caused by drug addiction, the government is spending:
      (i) Too much
      (ii) About the right amount
      (iii) Too little

Card 1
Column


When all the data have been keypunched, a verifying machine is used to check the accuracy of each punch against the source. Every time data are transferred from one medium to another, the transfer must be verified. Happily, once the data have been read by machine, verification of every subsequent transfer is automatic.

CODE CHECKING AND CLEANING. Quality control is a very important part of the survey research process. Questionnaires are carefully edited; all coding of unstructured material is checked for reliability; and verification, item by item and digit by digit, is conducted each time the data are transferred. With proper verification procedures, error rates can be kept below 1 percent; without them, errors can occur and accumulate at every stage. Since these random errors (sometimes exceeding 10 or even 20 percent) tend to destroy data patterns and make the results of statistical tests inconclusive, the difference between the success and failure of a well-designed study can often depend on the adequacy of procedures for quality control.

The last step in verification involves checking for "bad punches." If, for example, the proper codes for the variable gender are 1 (for males), 2 (for females), and 9 (for missing data), the appearance of any other number, a 7 for instance, indicates a mistake that must be traced and corrected. Logical checks can also be conducted; all those subjects coded on one variable as not being employed should be coded as "not appropriate" on another variable that purports to measure job satisfaction. Many computer installations include programs that are designed to facilitate this type of data checking. Data should immediately be cleaned by tracking down and eliminating all such errors; if the data are not cleaned, the errors will inevitably appear at later stages in the analysis when it is much more difficult and costly to correct them. Once cleaning is completed, the data are ready to be statistically analyzed.

A HYPOTHETICAL SURVEY. In the following illustration, portions of a priced questionnaire, a codebook, a data matrix recorded on a codesheet, and a set of punched data cards have been prepared to record and transmit the data collected in a hypothetical survey. The purpose of the survey is to discover the social and political priorities of a cross section of American adults.

Table 6.4 presents the first page of the priced questionnaire. When the questionnaire is edited, the proper code for each response selected by the subject is to be entered in the space provided in the right-hand margin. To the left of each space and enclosed in parentheses is the number of the column into which the particular response code is to be punched on the data card (No. 1 in this case); this notation facilitates accurate transfer of data onto a codesheet. Proceeding also permits keypunching of edited questionnaire data directly onto data cards, eliminating the intermediate use of codesheets.

Table 6.5 includes the beginning and the end of a codebook that contains all relevant information about the numerical codes in which the data will now appear. Note that the questionnaire was quite lengthy, requiring four separate data cards (deck No. 1 to deck No. 4) for each logical record. Identification numbers and card numbers are repeated on each card, always punched into the same columns for ease of machine handling and sorting of complete card decks. Note too that the code 8 has been added in all parts of question 1, because some
### Table 6.5: Excerpts from a Codebook

#### CONTENTS OF CARD DECK NO. 1

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Column Location</th>
<th>Question Wording and Response Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>—</td>
<td>1–4</td>
<td>IDENTIFICATION NUMBER</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>CARD NUMBER: 1</td>
</tr>
<tr>
<td>1a</td>
<td>7</td>
<td>Improving and protecting the environment</td>
</tr>
<tr>
<td>1b</td>
<td>8</td>
<td>Improving and protecting the nation’s health</td>
</tr>
<tr>
<td>1c</td>
<td>9</td>
<td>Solving the problems of big cities</td>
</tr>
<tr>
<td>1d</td>
<td>10</td>
<td>Halting the rising crime rate</td>
</tr>
<tr>
<td>1e</td>
<td>11</td>
<td>Dealing with problems caused by drug addiction</td>
</tr>
<tr>
<td>1f</td>
<td>12</td>
<td>Improving the nation’s educational system</td>
</tr>
<tr>
<td>1g</td>
<td>13</td>
<td>Providing adequate assistance to the poor</td>
</tr>
<tr>
<td>1h</td>
<td>14</td>
<td>Reducing unemployment and improving working conditions</td>
</tr>
<tr>
<td>1i</td>
<td>15</td>
<td>Meeting the needs of the nation’s elderly citizens</td>
</tr>
</tbody>
</table>

#### CONTENTS OF CARD DECK NO. 4

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Column Location</th>
<th>Question Wording and Response Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>—</td>
<td>1–4</td>
<td>IDENTIFICATION NUMBER</td>
</tr>
<tr>
<td>—</td>
<td>5</td>
<td>CARD NUMBER: 4</td>
</tr>
</tbody>
</table>

### Survey Execution

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Column Location</th>
<th>Response Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>88</td>
<td>7</td>
<td>Yes, No, Missing data</td>
</tr>
<tr>
<td>89</td>
<td>8</td>
<td>The courts are too harsh, the courts are not harsh, Missing data</td>
</tr>
<tr>
<td>90</td>
<td>9</td>
<td>Would you favor or oppose a law that would require a person to obtain a police permit before he or she could buy a gun?</td>
</tr>
<tr>
<td>91</td>
<td>10</td>
<td>Have you ever, as an adult, been punched or beaten by another person?</td>
</tr>
<tr>
<td>92</td>
<td>11</td>
<td>Have you ever, as an adult, been threatened with a gun or shot at?</td>
</tr>
<tr>
<td>93</td>
<td>12</td>
<td>Has anyone broken into your home or apartment within the last five years?</td>
</tr>
<tr>
<td>94</td>
<td>13–16</td>
<td>Year of birth (code the four-digit year exactly)</td>
</tr>
<tr>
<td>94</td>
<td>17</td>
<td>Gender</td>
</tr>
<tr>
<td>94</td>
<td>18–19</td>
<td>The highest year of school that you completed (code number of years as a two-digit number: 01, 02, 03, etc.)</td>
</tr>
<tr>
<td>—</td>
<td>99</td>
<td>Missing data</td>
</tr>
</tbody>
</table>
respondents wrote on their questionnaires that they had too little knowledge on which to base a meaningful reply.

Figure 6.2 presents a codesheet on which the data for deck No. 4 have been recorded for the first ten subjects. Note that column 6 has been left blank. Although not necessary, this blank column serves as a separator between the identifying information for each subject and the data for that subject. Blank columns can be useful as visual cues to help ensure that all data are being properly transferred into the appropriate columns of both the codesheet and the punch card. The series of 4s punched into column 5 identifies the accompanying data as part of deck No. 4.

Finally, Figure 6.3 presents the finished data cards for the first and the last respondents in our sample. Note the correspondence between the punch cards and the rows in the data matrix (Figure 6.2) from which they were punched.

### Secondary Analysis

Electronic data processing is only about 30 years old, and the large-scale collection and analysis of social science data are not much older. In recent years the cost of data processing has declined remarkably while the availability of facilities has greatly increased. Consequently, the costs of data collection now stand as the major barrier limiting the number of students and professionals who can afford to conduct major surveys without the support of government or other funding agencies. More and more researchers, however, are overcoming this final cost obstacle by engaging in secondary analysis — building research projects around reanalysis of data originally collected by someone else for another purpose.

Suppose you want to isolate factors that predispose people toward racial prejudice and you find an already-existing study of factors affecting voting behavior, in which a scale of racial prejudice was developed as one of the many variables under investigation. You can obtain the existing data and conduct a reanalysis in which prejudice becomes the most important variable. In this way you entirely avoid the cost of data collection by producing a new set of findings out of old data.

Secondary analysis may involve survey data, as in the example just discussed, but it may also involve information from sources other than surveys. Emile Durkheim's famous nineteenth-century study entitled Suicide involved a secondary analysis of approximately 26,000 suicide records from various countries in Europe, records collected long before survey research was a recognized methodology.

Today survey data are increasingly likely candidates for secondary analysis because of the quantity of such data and because of their availability in an inexpensive and well-organized form. Data collected by the U.S. Bureau of the Census, for example, are distributed for secondary analysis, and social scientists from a variety of disciplines take advantage of this abundant source. Secondary analysis has several other advantages, in addition to its low cost, that make it a useful research tool. Analysis of available records may often be the only way to obtain quantitative data about the past. As more and more survey data accumulate, trend studies comparing responses to similar survey questions asked over the course of many years become more practical and valuable for testing or creating theory. Secondary analysis can often be the basis for an important pilot study. Before embarking on an extensive and costly project, researchers may use secon-
dary analyses of past research to assess the soundness of their research design, to test the plausibility of their hypotheses, and to determine the strengths and weaknesses of formerly used indicators and question wordings. To accomplish any of these purposes, it may be necessary to reanalyze a single survey or a combination of surveys, to treat several surveys as replications of each other and compare their results, or to compare several different indicators used within the same survey. Other designs for secondary analysis are described by Hyman (1972).

Despite these virtues secondary analysis is not without its problems. There can be serious risks involved in comparing studies in which either the sampling procedures were different or the questions were worded differently. Furthermore, the older the research you wish to reanalyze, the less likely it is that the original researcher will have provided thorough documentation of procedures used, in anticipation of later interest in the data. There may be no codebook or no account of how the sampling was done. Also, older data may not be in a form that can easily be processed with modern equipment. Secondary analysis must restrict their design to those elements of data that an earlier researcher found relevant for a totally different purpose. This means that some important hypotheses will almost always be excluded and that others will be tested using indicators that are less than ideal. These limitations, the inevitable drawbacks that accompany the use of someone else’s data, mean that researchers must be cautious in interpreting results and should not try to extend limited data to cover a broad, but only partially tested, set of research questions.

Data Banks. A number of data banks have arisen as repositories of survey data. Usually, data banks make their holdings available at cost in a machine-readable form (data cards or magnetic tape). Sometimes specific tables of data can be requested, and the data bank will process the data for a minimal fee. Hyman (1972) provides an extensive list of data banks, including many that specialize in collecting particular kinds of data. The following are some of the largest:

Louis Harris Political Data Center, University of North Carolina, Chapel Hill (surveys conducted by the Harris pollsters)

National Opinion Research Center, University of Chicago (general collection of NORC national surveys)

Roper Public Opinion Research Center, Yale University (very large, international collection of surveys)

The Strengths and Limitations of Survey Research

We have already referred briefly to some of the strengths of the survey method. First, it is a method uniquely capable of generating a broad range of data about the characteristics of large populations. Since this coverage is usually accomplished by using carefully designed methods of scientific sampling, and since the data being sought are usually provided, without charge, by the good will of voluntary subjects, the method is also a very cost-efficient approach to large-scale research.

Surveys are also flexible and adaptable in terms of the wide variety of subjects and research problems that can be studied in this way. Only a limited range of either individual or group behavior is sufficiently public for a researcher to study it directly. And of the types of behavior that could be considered public and accessible, many are episodic, sporadic, and unpredictable, thus making it very inconvenient and costly to search them out, wait for them to occur, and record them. In contrast to these serious difficulties of observation, there is almost no type of behavior—private or public, regular or intermittent—that cannot be talked about. In a very real sense surveys substitute talk for action, and this thereby greatly extends their range of applicability. Unfortunately, in so doing, they also substitute reports of behavior for direct, empirical observation of it.

The problem of accepting self-reports as true has already been discussed in detail in Chapter 3. Briefly, the motives behind what people report (and what they fail to report) about themselves are a great deal more complex than any pure desire to provide the researcher with an accurate account. The motives of avoiding painful or embarrassing self-revelation and of highlighting personal qualities which may lead to respect or prestige make it difficult to assume that survey respondents’ reports about either their actions or their attitudes are, in all cases, accurate.

Self-reports are also limited to those topics about which the average respondent can be assumed to have enough knowledge or insight to speak. Surveys conducted during the 1979 Senate debate of the SALT II arms limitation agreement, for example, showed that almost two-thirds of American adults did not even know that the Soviet Union and the United States were the two parties to the treaty. Equally limited are questions that ask the respondent to provide a self-diagnosis. It cannot be assumed that subjects are sufficiently aware of their own personalities, beliefs, or dispositions to accurately describe themselves on a questionnaire. Introspectiveness and self-awareness are themselves highly variable human traits that greatly affect respondents’ abilities to analyze themselves. For these reasons the self-reporting method should not be relied upon exclusively in situations in which other, more direct methods of observation and measurement are available.

A simultaneous limitation and strength of the survey method is that it is typically deductive, theoretically, and that it relies upon adherence to a pre-planned research design. On the one hand, designing and finalizing a questionnaire before contacting subjects in the field means that the researcher must anticipate all that will be relevant and that flaws that might appear in the research design during the data collection stage cannot easily be altered. On the other hand, this rigid consistency about procedure can produce remarkably uniform and reliable results. A properly executed survey strives to maximize the comparability of data collected, and this strategy in turn increases the chances for clear and fruitful analysis.

An awareness of the breadth of the applications of the survey method should encourage you to experiment with many different ways of asking questions and with a wide variety of subjects. At the same time, keeping in mind the limitations of self-reports should lead you to design your questionnaire carefully and to consider whether available, supplementary methods of data collection might be combined with the survey to enhance the overall effectiveness of the research.8

8See Chapter 6 for further discussion of the limits of survey research methodology.
Summary

Survey research is a procedure for systematically collecting information about the attitudes, beliefs, background, experiences, and behavior of a sample of people by using interviews and questionnaires. This chapter has concentrated on six critical aspects of the survey research process: (1) planning the survey, (2) formulating questions, (3) constructing a questionnaire, (4) executing the self-administered survey, (5) interviewing, and (6) preparing the data for processing.

The survey is the most frequently used research technique in social science; most topics of any interest to social researchers have been studied in this way. The survey method is not only flexible and adaptable to a number of research purposes; it is also capable of producing, from a relatively small sample, results that can be generalized to a much larger population of interest.

Cautious and thoughtful planning are crucial to successful survey research; the likelihood that any survey will produce data of interest and value to the social researcher is largely determined before any data are collected. A well-planned design, nonetheless, requires skillful execution and careful attention to every detail if the aims of the project are to be realized.

Survey research, like other methods, has its limitations and is not a solution for every research problem. Perhaps the greatest weakness of the method is its total dependence on the respondents—on their memory, their interest, their clarity of self-perception, their frankness, and their honesty. Although deliberate deception is rare, many factors determine how and what people report about their attitudes, beliefs, and behavior, and these factors affect the quality of the data generated in surveys. Consequently, every element, however minor, that goes into the construction of a questionnaire must be carefully designed to serve the aims of the project while minimizing the opportunity for error. The content, wording, sequence, and structure of questions as well as the overall layout of the questionnaire are crucial to the success of any survey.

Key Terms

- face-to-face interview
- filter question
- identification number
- key punch
- loaded question
- longitudinal survey design
- machine-readable data
- one-dimensional question
- open-ended question
- panel study
- pilot study
- preceding
- proord
- random-digit dialing
- secondary analysis
- self-administered questionnaire
- structured question
- telephone survey
- trend study
- unstructured questions

Exercises

1. Design a brief questionnaire that might be used in a study of the type conducted by Garland F. White (1975, in Suggested Readings). What sources of bias do you think are inherent in this kind of study? If the occupations of the criminals and victims are reversed in half the cases and the sample is thus split into two halves for analysis, how do you know that the two halves are similar in terms of socioeconomic characteristics? How can you ensure this similarity in conducting the study?

2. Two students should work separately on this exercise. Design a very brief questionnaire asking what people consider to be the main problems facing the leaders of the United States. One questionnaire should ask the question without suggesting any answers; the other should contain a list of possible answers to be shown to the respondents. Administer each questionnaire to ten classmates. Compare the answers received. What implications are there for questionnaire design? Which question format is preferable? Why? In what situations might each format be more effective than the other?

3. One concern of The People's Choice (Lazarsfeld, Berelson, and Gaudet, 1944) was to determine why people vote the way they do. Consider an upcoming election or one that has recently taken place. Conduct a survey to test one out of the reasons that people intend to vote for (or actually voted for) the candidate of their choice.

4. Two students should work on this exercise together. Work up a brief list of questions on a topic of interest to both of you. Each student should select five people to interview by means of these questions. One will conduct face-to-face interviews and the other will carry out telephone interviews. (Determine who will use which data collection technique by the flip of a coin.) After the interviews are completed, compare notes on your interviewing experiences.

Suggested Readings

READINGS ABOUT THE METHOD


A good description of various phases of survey research. The heaviest concentration is on questionnaire construction and sampling. A series of fifteen useful checklists for the actual execution of survey research is also presented. This remains one of the best available sources for specific and explicit instructions about designing a survey and constructing a questionnaire.


Survey interviewers relate their own experiences in the field and their attitudes toward the data they collect.


An analysis of the role and nature of survey research in several fields, including sociology, political science, psychology, education, and social work.

Sample design, administration, and various types of errors associated with telephone surveying are analyzed. A systematic comparison of telephone and face-to-face interviewing is presented.


Advantages and pitfalls of secondary analysis are discussed in depth. Various approaches to this technique are examined in relation to their underlying theoretical perspectives. Numerous case studies and examples of empirical work are employed to illustrate various categories of secondary analysis. Also included are references to many collections of secondary data.


Miller's handbook is a popular and useful reference for students seriously interested in social research. It includes a number of practical discussions on how to write a grant proposal, what factors to consider when estimating the costs of proposed studies, where to obtain data for secondary analysis, and how to submit results for possible publication.


The general guidelines given to researchers at the Survey Research Center, this work is applicable to any type of survey interviewing.

READINGS ILLUSTRATING THE METHOD


This study of the American occupational structure involves analysis of secondary data from the U.S. Census. Data on more than 20,000 American males aged 20 to 64 are examined to isolate trends and phenomena in American occupations. The volume contains an excellent discussion of the quality of the data, notably bias due to missing data.


This article is based on the findings of a survey of 2,000 American adults. A number of interesting questions are explored. Are married couples happier than single people? Does the presence of children lessen the happiness of married couples? What happens to the level of happiness for married couples when their children grow up and go to leave home? Do men need relationships with women more than women need relationships with men?


This is an epic study dealing with segregation in public schools and its implications. Massive numbers of teachers and students provided information about themselves. The fact that the questionnaire were controlled or administered by the teachers themselves rather than by trained professional interviewers may represent a methodological problem. Supplemetary studies investigated black college students and school enrollments based on 1960 U.S. Census figures. Several case studies were also employed. This work is a classic example of what happens when several methodologists and sources of data are included in a single investigation.


The data for this survey were collected via 764 telephone interviews. Heads of households were selected using a random-digit dialing method. Models explaining the ownership of guns are developed from this data.


Reed employs secondary analysis in a study of the Southern United States. His objective is to determine whether, as the South and other parts of the country become more similar demographically and economically, they are also becoming less distinguishable culturally. He utilizes survey data from public opinion polls conducted by someone else. Surveys covering three decades are involved in the study. Reed discusses the advantages and limitations of secondary analysis and the results obtained in the study.


This work is a classic example of research conducted via the survey method.


A door-to-door interview survey in a large Midwestern city is the source of the findings in this study. The objective of the research is to determine how the occupational status of criminals and the seriousness of their crimes affect people's conceptions of "fate" punishment. The rigidly structured sample of 523 persons was exposed to each of several hypothetical crime episodes, which mentioned the criminals' and victims' occupations as well as the nature of the crime. In roughly half the cases, the occupations of the criminals and victims were reversed. Respondents were asked how severe the punishment should be. The seriousness of the crimes described in the episodes varied substantially. Thus the researcher was able to compare the suggested punishments for various degrees of crime severity and for differing occupations of the criminals for the same crime.


This study of 378 respondents in the Boston metropolitan area appraises the public's perception of the relative tax burdens of rich and poor Americans. Individuals at various income levels were interviewed. The author concluded that there was a general tendency to underestimate the total tax burden of the poor.


Secondary analysis of pre-existing survey data obtained by the American Institute of Public Opinion (the Gallup Poll) from 1939 to 1969 forms the basis of this study. Various age cohorts or groupings were analyzed to determine whether church attendance varies significantly by age. The study illustrates the use of cohort analysis and secondary analysis.

References


Introduction

Let us suppose we are studying the processes by which individuals seek acceptance into so-called deviant groups. We have decided to investigate occupations generally regarded as deviant and wish to begin by studying male go-go dancers. What method of data collection shall we employ?

We know relatively little about male go-go dancers, except that they are widely considered a deviant occupational segment. Will they agree to be interviewed? If so, will they be cooperative or will they be evasive or deliberately misleading in their responses? In what setting should we interview them? What types of questions should we ask?

We quickly dismiss the possibility of sending a task force armed with questionnaires to interview a random sample of male go-go dancers. The logistical problems alone could be overwhelming. Imagine arranging for a number of interviewers to obtain access to this group. Of even greater consequence could be the difficulty of anticipating what the most productive lines of questioning would be. The very fact of engaging in an unusual occupation could mean that the respondents would be unpredictable and would vary greatly in their reactions to specific questions; so how do we devise a standard set of questions that would be productive in each interview and easy for hired-hand interviewers to administer?

Is there a data gathering method that might meet our needs better than