

WORKBOOK F:

**CONDUCTING
TELEPHONE SURVEYS**

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OVERVIEW OF TELEPHONE SURVEYS

Organizations use telephone surveys as a quantitative research method for determining what people think and how they behave. They involve calling and interviewing a representative sample of people within a geographic area or a targeted market served by an organization. Telephone surveys may consist of 50 interviews or 1,000 or more, depending on the research goals and available resources.

Steps Involved in Conducting Telephone Surveys

1. Developing a Sampling Strategy

(Who do you want to survey? How will you identify them and get contact information? How will you organize the survey population?)



2. Developing a Questionnaire

(What information do you need to find out? What is the best way of asking questions in order to get the information that you need?)



3. Conducting a Pilot Test

(A pilot test allows you to test the effectiveness of a questionnaire before using it to collect your data.)



4. Conducting the Telephone Interviews

(Includes calling respondents and interviewing them, and recording what they say.)



5. Entering the Data

(In order to be analyzed quantitatively, you will need to enter your data into computer storage so that statistical software can utilize it.)



6. Analyzing the Data

(Making sense of the findings.)

Advantages and Disadvantages of Telephone Surveys Compared to Other Research Methods Such As Mailed Questionnaires

Advantages

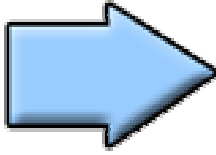
1. **Higher response rates.**
2. Ease of **implementation** and greater **complexity**.
3. Greater **length** of interview.
4. Greater **depth** of response.
5. **Cultural appropriateness.**

Disadvantages

1. **Cost.**
2. Difficulty of **reaching some populations**, such as low-income residents or people who live in institutional settings.

Telephone surveys offer several advantages over self-administered surveys, such as mail surveys, email surveys, or web surveys:

- ▶ **Higher response rates:** While it is possible to achieve good response rates for self-administered surveys, the costs of doing so are often high and there is no guarantee that a sufficient number of people will return completed questionnaires to achieve the desired sample size. When you are identifying a well-known organization as the sponsor for the survey, and people have a strong connection to the goal of the survey, response rates for mail surveys rarely exceed 25%, while good-quality telephone surveys can achieve response rates of 60% or more.
- ▶ **Ease of implementation and greater complexity:** Telephone surveys can incorporate highly complex questionnaires that are impossible to manage in a self-administered format such as variations of questions that depend on respondent characteristics. For example, if you want to ask specific questions of parents with children in sixth grade only (vs. any other specific grade).
- ▶ **Greater length of interview:** Telephone surveys can accommodate a longer questionnaire (more questions), resulting in a greater amount of information than is possible with self-administered formats—long questionnaires that are self-administered are rarely completed and often result in brief or incomplete responses to questions.
- ▶ **Greater depth of response:** Telephone interviews almost always result in more complete information, since people often do not fill out questionnaires completely or accurately, and may provide incomplete or cryptic answers to open-ended questions. Some of the information your community is hoping to learn about OST activities may be complex. A trained telephone interviewer can probe for in-depth responses and make sure people answer all relevant questions, thus the problems with missing data that are common in self-administered surveys are virtually eliminated.
- ▶ **Cultural appropriateness:** Self-administered surveys are not appropriate for people who lack skills in reading, writing, or understanding English (or native languages, if the questionnaires are translated). Examples of populations for whom mail surveys are usually inappropriate include: Recent immigrants to the U.S. from non-English speaking countries; children under age twelve (8th grade or younger); persons with developmental disabilities or cognitive problems; persons with physical disabilities that preclude use of pen and paper; persons with blindness or visual impairments.

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Sometimes telephone surveys are not your best research option—if you want detailed information about people’s feelings on a topic, you may want to conduct a focus group. Also, some groups of people are difficult to reach by telephone.

Telephone surveys are not an appropriate method for answering some types of research questions. Certain types of research questions (for example, if you want detailed information about people’s feelings and underlying concerns about issues relating to child safety) require a different research approach, such as focus groups.

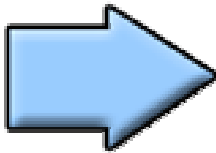
In addition, some populations cannot be reached effectively by telephone; for example, groups that tend not to have telephones, such as low-income residents or people who live in institutional settings, and groups for whom a list of telephone numbers does not exist. In these cases, you may want to consider using research methods that better suit the population you are trying to reach.

Deciding Whether or Not to Outsource a Telephone Survey

Telephone surveys can be a good choice for organizations who have the internal resources for a large-scale survey. Otherwise, the organization may want to consider outsourcing the telephone survey, as this research method generally involves a considerable time and resource commitment, compared with in-depth interviews and focus groups. You may conduct anywhere from 50 to 2,000 telephone interviews, depending on your research goals (up to a point, the more interviews you conduct, the more accurate the findings). You may conduct a telephone survey with one type of respondent (e.g., local educators), or with several types of respondents (e.g., local educators, local policymakers, and local after-school program operators) to obtain different perspectives on your topic.

- ▶ **When to outsource a telephone survey:** If you have the resources to outsource your telephone survey, you should strongly consider this option. Organizing, managing, and conducting telephone surveys is a complex and time-consuming project.
- ▶ **When to conduct a telephone survey using internal resources:** You may want to conduct telephone interviews using internal resources if you have access to a phone bank (at least 10 to 15 phone lines that can be dedicated to conducting the telephone survey); a large number of staff members or volunteers, preferably with adequate skill and training, as well as characteristics that would predispose them to being good interviewers; and the time to devote to interviewing (which can include contacting potential respondents multiple times before completing an interview).

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In general, we recommend that you hire a data collection firm to conduct a telephone survey, if possible. Conducting a telephone survey in-house is a complex and time-consuming endeavor that requires a lot of resources.

Including Area Schools in Your Research Planning Process

No matter what research method you plan to use to inform your community's OST planning research, if you plan to use students as research subjects, it is a good idea to **include area schools in your research planning process**. For example, one effective method of finding out what parents and students are looking for in OST programs and activities is to conduct interviews with students (either self-administered or in-person interviews), ask students for their parents' telephone number, and contact parents for a telephone survey or to participate in a focus group. Before you enter the school to conduct the student interviews, you will need to obtain approval from the school superintendent.

It is helpful if someone on the project planning team has connections with the school department and can contact superintendents to get their buy-in and approval to use the school in the research. Ideally, the superintendent can assist you in contacting school principals to get their buy-in. It is critical to **obtain the approval of school principals**, as they generally have complete decision-making power regarding what occurs in their schools. Principals are also highly likely to want to notify parents before any research is conducted. **Remember to build time into your research schedule for schools to send notices to parents**. In addition, school systems have formal systems for reviewing research materials; there could either be a review board or an individual who will review and approve your research materials. Talk to the school superintendent to identify what the reviewing process is and who you should contact. **Build this review process into your research time line as well**.

Two good strategies for obtaining buy-in are to **emphasize the value of the research**, and **make it easy for schools to participate**. For example, make sure school superintendents and principals understand the importance of your research project and the direct benefit this research will have on your community's children. Try to arrange your research project so that it uses as few school resources as possible. For example, rather than relying on the school system to mail or transport surveys, arrange to transport surveys yourself if needed.

What Communities Have Learned

Enhance the value of participation. "The challenge is convincing the principal to administer the survey in his or her school, and helping them find a way to get it done. Schools always have special projects, and fitting in a survey is often not the principal's first priority. What we tried to do after the first year was to feed back the principal's own school information, so that they got a direct benefit from participating. They were the only ones that received their own school's information—everything else we did was by the entire region. Principals had control over their own school's specific information."

You must get buy-in from principals even if you have conducted research at the school previously. "This third year [that we've done the research], we didn't market to principals well enough. We thought maybe that they would have been more on board the third year. I think the big lesson is that every year you do research, you've got to treat it like it's the first year, and really sell it to the people who control whether or not your research is going to be successful. For example, just because you gave incentives the first year, you shouldn't think that incentives won't be necessary the second year. You can't let up on the marketing aspect of your research. You've got to constantly assume that people aren't necessarily on board."

--Bob Goerge, Chapin Hall Center for Children. Conducted a multi-phase research project, including self-administered surveys of high school students in Chicago, in-depth interviews with students, and an inventory of OST programs in Chicago. The objective of this research was to better understand participation in OST programs and other activities among Chicago youth, as well as the effects of established programs.

In addition, there may be other organizations involved in the initiative, each with its own internal review processes. In the next sections, we will present more detailed information regarding outsourcing telephone surveys and conducting telephone surveys using internal resources. For communities conducting telephone surveys using internal resources, we will present information about each step in the process.

Passive Consent

What is Passive Consent? *Passive consent* is the process whereby consent is given by not returning an “opt-out” or “withdrawal” form. In other words, parents are given the opportunity to withdraw their child from the research. If they do not withdraw their child, then the researchers can include the child in the research. This differs from *active consent*, which requires that parents confirm in writing their permission for their child to participate in research. Many CBOs and school districts now use passive consent rather than active consent in order to secure the participation of students in important research. A sample withdrawal form is included on the CD of prototype materials included with this guide.

Why Use Passive Consent?

- ▶ Active consent has been criticized as an overly rigid process that severely limits access to students for survey research. Proponents of passive consent note that survey research such as that proposed herein already has minimal risks, is anonymous or confidential, and is voluntary.
- ▶ Research suggests that passive consent results in a more representative sample. Students who would have been excluded by active consent because they or their parents simply forgot to sign and return an active consent form can now be included in the research.
- ▶ Passive consent generally involves less cost and labor for researchers.

Passive Consent Recommendations

- ▶ Most importantly, specific schools, districts, or organizations may have their own consent policies. Always check with the schools or organizations you are working with to be sure that passive consent is permitted.
- ▶ Allow more than one way for parents to refuse their child’s participation. For example, they could return the form, call a telephone number on the form, or reply by email.
- ▶ Make sure all materials are language-appropriate. For example, if you anticipate a population with limited English-reading ability, be sure to provide forms in the appropriate primary language.
- ▶ Parents should be given sufficient time to refuse their child’s participation. We recommend that you hand out forms about one week prior to research. This provides adequate time for refusal, but is not so far in advance that the form is forgotten or deemed irrelevant.
- ▶ Be sure to include the following information on the withdrawal form:
 - Topic of research.
 - Participation is voluntary and refusal to participate will not negatively affect the student.
 - No identifying information is recorded (the survey is anonymous) or if recorded, every effort is made to keep the information confidential.
 - The dates of the research, and how long the research will take (e.g., “the survey will take approximately ten minutes to complete”).
 - Any potential risks (for this type of survey research, risks are minimal. Be sure the student knows that if at any time they feel uncomfortable participating in the survey, they can stop).
 - Any direct benefit to the student for participating (for example, better after-school programs).
 - All relevant contact information (e.g., the school or organization conducting the research).

OUTSOURCING TELEPHONE SURVEYS: A Guide to Hiring Vendors

Who to hire:	<ul style="list-style-type: none"> ▶ Data collection firm ▶ Full-service marketing research firm (for data collection only)
What to look for:	<ul style="list-style-type: none"> ▶ Good management structure ▶ A programmer or programming staff ▶ Call centers in the United States or Canada ▶ Experience with similar types of research projects ▶ High-quality interviewing staff ▶ Price
Where to find vendors:	<ul style="list-style-type: none"> ▶ Internet searches for <i>data collection, marketing research, telephone surveys, etc.</i> ▶ Quirk's Marketing Research Review, Researcher SourceBook™ (www.quirks.com). Look for vendors offering the following types of research services: <i>data collection, telephone surveys, etc.</i> ▶ The Blue Book Research Services Directory (www.bluebook.org) ▶ Ask trusted associates for recommendations
What they will do:	<ul style="list-style-type: none"> ▶ Discuss your research objectives with you in detail ▶ Conduct all telephone interviews and provide you with the data from the interviews
What you will do:	<ul style="list-style-type: none"> ▶ Provide vendor with a clear understanding of your research objectives ▶ Provide vendor with questionnaire, job-specific training materials, and APQ (Answers to Potential Questions) ▶ Manage the vendor to the extent you deem necessary
What you should expect to pay:	<ul style="list-style-type: none"> ▶ Can vary widely, depending on vendor and scope of project ▶ Costs generally range from \$8,000 to \$16,000 for data collection for a typical survey research project.

Using a data collection firm to conduct your telephone interviews will likely result in good information, provided you use the following guidelines to assist you in choosing and managing the firm. Outsourcing data collection can be expensive, however. **Costs for data collection will vary based on three things:** the length of the interview, the number of interviews conducted, and the target population for the survey. A fairly typical survey runs 15 minutes in length, requires 300 to 500 interviews, and targets the general population—this type of survey costs approximately \$8,000 to \$16,000 for data collection. It is important to note that if you need a more specific population (such as households with children), costs generally increase by about 10%. It is important to note that a very specific population, such as households with middle school-age children, is likely to be much more expensive.

Choosing a Data Collection Firm

When searching for a data collection firm to use, look for these characteristics:

- ▶ **Good management structure.** A high-quality data collection firm should have a high-quality management structure that will look after your project and communicate with you. Look for a firm that has a project manager, a call center manager, and data collection supervisors. Ask about the typical work flow of the firm's projects—what are the steps involved in conducting a telephone survey? Remember that you are hiring the experts. If you hire a high-quality firm, you should feel confident that they will follow all the correct procedures and provide you with high-quality information. You are hiring them so that you don't have to worry about all of the details.
- ▶ **A programmer or programming staff.** Your questionnaire will need to be programmed into a computer format before being used for telephone interviewing—this way, interviewers can enter the data into computer storage during the telephone interview. Beware of firms who state that programming is “just part of the project”—this often means that the firm does not have high-quality programming staff and can result in programming that takes too long and contains too many errors. You want a firm that considers programming to be a crucial and vital step in the process of beginning a project.
- ▶ **Call centers in the United States or Canada.** If you are conducting research in the United States, you should hire a data collection firm with accent-neutral interviewers. A strong foreign accent can severely impede completion of your survey.
- ▶ **Experience with similar types of research projects.** Always ask the firm what types of projects they have conducted in the past. This is important because you would like the firm to have experience conducting the type of research you are asking for; for example, if a firm specializes in product testing, they will probably not be an effective research partner.
- ▶ **High-quality interviewing staff.** Always ask a firm about their training procedures for their interviewers—usually, a firm will send you their training manual if you request it. Be sure the manual stresses high-quality interviewing techniques such as refusal conversion, depth of information (probing for more detailed information when necessary), objectivity (non-leading questions—interviewers should never indirectly tell respondents what to say), and professionalism. Also, look for firms that do higher quality types of interviews, such as business-to-business interviews, physician interviews, or in-depth interviews. These types of interviews are usually an indication that the firm has a high-quality interviewing staff.
- ▶ **Price.** Of course, price is always a factor when deciding on a firm to use, and you would like to receive the best results possible for the most reasonable price. This balance is important—remember that quality is often directly related to price. Be cautious of firms whose price is substantially lower than the range listed above—this type of firm may provide inferior-quality data that would be less helpful.

In addition, while it is effective to use the Internet for your initial research regarding data collection firms, **conduct the majority of your research about potential vendors via telephone.** You will receive much more information, and better information, this way. Also, it is difficult to evaluate a company based solely on their web site—it is our experience that some impressive web sites have been created by mediocre firms, while some very high-quality firms maintain much smaller or more modest web sites.

Talk to the Project Manager or Contact Person

When researching data collection firms for possible use in your project, it is important that you speak with the person who you would be dealing with directly once you hire the firm. This is most often the project manager. This will give you a much better idea of how things will work than simply speaking with the firm's sales staff. Once you have decided that a firm's size, price, and management structure are suitable for your needs, ask to speak to the project manager. You can say, "If I hire you, who would I be dealing with directly? I'd like to talk to that person."

Beginning the Study

After choosing a firm, you will need to provide them with the questionnaire for the study, an APQ sheet (Answers to Potential Questions), and any necessary training materials specific to the study. The first thing you should schedule is a test of the questionnaire—this is called a pilot test. After sending the firm a copy of the questionnaire, you should call to review the material with the call center manager and the interviewers piloting the questionnaire. You should alert them to any skip patterns (questions that should not be asked of certain respondents), specific terms or information regarding the study, and general quality concerns. You can then monitor the interviewers via telephone as they make the piloting calls. A pilot test will provide you with excellent information regarding any changes you should make to the questionnaire, whether the concerns are clarity or length of interview.

After all revisions are made to the questionnaire, you will provide the final copy to the data collection firm. Allow one full working day, eight hours, for the firm to program the questionnaire into computer format for telephone interviewing. Once the questionnaire is programmed, data collection may begin in earnest.

On the first evening of data collection, you may want to provide an initial briefing via telephone for the interviewers and call center manager working on your job. This is your opportunity to provide specific information about your study, the questionnaire, and your expectations. The supervisor for your job should be present at the briefing, and at least a few of the interviewers who will be working on your job. This way, you have in-house experts working on your study.

Management During the Course of Data Collection

The firm you hire should provide you with dialing reports as often as you'd like. Dialing reports show you how the project is proceeding along, including how many calls have been made, and of those calls, how many turned into completed surveys, refusals, or were ineligible for some reason. The report will order this information by geographic area if necessary. Dialing reports also generally tell you (1) how long the interview takes, and (2) the rate of incidence. The rate of incidence is a formula to identify the proportion of people contacted who were eligible to

complete the survey. Incidence can be used for proper sampling management—for detailed information on how to manage sample, please refer to page 41.

You can decide how involved you would like to be during the course of a survey. If the firm you hire is a high-quality firm, the need for you to manage the project should be minimal. Begin the project by giving the firm your project's specifications, including when you would like the project to begin, when you would like it to end, detailed information regarding the questionnaire, and detailed expectations of quality, such as how in-depth you would like verbatim responses to be. You may want to monitor the dialing reports, and occasionally monitor the surveys themselves to ensure that you are receiving the information you want. You may also want to be involved in the management of the sample for the survey.

If you would like to monitor the telephone interviews themselves in real-time, you should be able to schedule that with the data collection firm. The most effective way of doing so is to note the specific interviewers you would like to monitor, and ask the firm to schedule a time for you to listen to those interviewers. You can identify which interviewers you would like to listen to by looking through the first batch of data the firm sends you. You should look at the quality of the answers to the open-ended questions in order to gauge the quality of the interviewer. Choose interviewers of different skill levels so that you hear a broad range, not just the best or worst interviewers of the firm. This will give you a general idea of how the interviewing is proceeding.

TYPICAL SCHEDULE FOR AN OUTSOURCED TELEPHONE SURVEY

- ▶ A pilot test should be scheduled within a week of your initial phone call to the firm.
- ▶ The pilot test should take one evening, generally with two interviewers working on the pilot and providing 6 to 10 completed surveys.
- ▶ Revise the questionnaire and provide the final version to the firm. Allow one full day (8 hours) for the programming of the questionnaire. On occasion, programming may take 2 days.
- ▶ Begin data collection. Factors in the time line of data collection include the number of desired surveys, the desired response rate, the firm's calling schedule, the population being called, and the length of the questionnaire. In general, you should allow one week per 100 completed surveys (e.g., 300 completed surveys = 3 weeks).
- ▶ End data collection and receive final data.

The End of Data Collection

At the end of data collection, the firm you hired will provide you with all of the data they collected in whatever format is best for you. This is usually a computer-readable database such as Access or Excel, or an ASCII file. Some data collection firms will also provide hard-copy crosstabulations at your request, and some firms may also offer analysis at an additional fee.

The most important factor to consider when deciding how you want to receive your data is this: how are you planning to analyze the data? Ask the firm you hire to use a format that will make your analysis of the data as easy as possible. You should be able to work closely with any firm to decide which format is best for you. For example, if you plan on using SPSS to run and analyze your data, ask the firm what format works best with the SPSS software. In addition, the firm should also provide you with a final dialing report.

CONDUCTING TELEPHONE SURVEYS USING INTERNAL RESOURCES: 1. Developing a Sampling Strategy

The six steps involved in conducting telephone surveys are: (1) developing a sampling strategy; (2) developing a questionnaire; (3) pilot-testing the questionnaire; (4) collecting the data; (5) entering the data; and (6) analyzing the data. We will discuss each of these steps in turn.

The first step in conducting telephone surveys is developing a sampling strategy: identifying who you should be interviewing, how you will obtain contact information for these people, and how you would like to organize this population (for example, how many interviews do you plan to conduct, and of those interviews, how many should be from specific areas or subpopulations, such as Spanish-speaking residents). You need to have a good sampling strategy in order to obtain valuable information for your study.

WHO should you interview?

Begin with a clear understanding of the types of people you plan to contact for your research. This will be determined by your research objectives. Here are some questions to ask yourself:

- ▶ Why are you conducting this study?
- ▶ What do you want to learn from this research?
- ▶ What decisions will you need to make once the research is completed?
- ▶ Whose feelings, beliefs, attitudes and preferences will help your community make the decisions it needs to make for your OST planning?
- ▶ Who will be most affected by the decisions you will make?

Knowing Who to Interview

The first and most important step in developing a sampling strategy is to have a clear understanding of the types of people you are planning to contact for your research. Whose opinions and preferences will help your community make the decisions it needs to make for your OST planning? For example, given the types of decisions that your community needs to make, is it important for you to learn about how area parents feel about OST? Area school children? Perhaps the planning your community needs to undertake can best be guided by speaking with teachers and educators in the local schools, or with individuals who are operating existing OST programs in the neighborhood.

To decide who you need to contact for your research, know the objectives of your research. Good research depends on having well-defined goals. Putting your goals in writing will help you focus and clarify exactly what shape your research should take.

There are probably many populations in your community who have opinions on OST programming—parents, children, teachers, OST program leaders, community organizations, business leaders, policy makers, et cetera. Be as specific as possible in defining your target populations. The chart below illustrates some sample research goals and survey populations.

RESEARCH QUESTIONS	TARGET POPULATION(S) TO SURVEY
What do neighborhood children really want to do with their OST time?	School-age children in your community
What OST programs exist in the community?	Educators, OST program leaders
Why aren't parents enrolling their children in neighborhood OST programs?	Parents of school-age children living in your community

Sampling Methods

What is a sample? A sample is a subset of a population. Let's say that your community is hoping to identify the barriers preventing parents from enrolling their children in existing OST programs, and to do this, it plans to get information from local parents. In some communities where there is a very small population of parents, it may be possible to include the entire population of parents in the study (i.e., a census). In most communities, however, it would be prohibitively time-consuming and unnecessary to identify and interview every parent. Rather than interviewing the entire population of parents, you can interview a sample: that is, a portion or subset of the population of parents.

Representative sample: An important thing to remember when you are conducting your research is that you are not hoping to learn what *parents who completed a survey* think about their children's OST activities—you are hoping to learn what *parents in your community* think about their children's OST activities.

All survey results do not automatically apply to the larger population. If you need to generalize the findings of your research to the larger population, you will ideally have a representative sample. For example, if 50% of parents in your community are Caucasian, 25% are African-American, and 25% are Latino/a, then ideally, 50% of your survey respondents will be Caucasian, 25% African-American, and 25% Latino/a parents.

In some cases, however, this type of surveying may be too costly or time-consuming, especially if resources are limited. It also may be less important for your community to survey a representative sample of the total community, depending on your research goals. For example, if your community was interested in developing OST programs for area children with special needs, you would want to speak only with area parents of special needs children.

There are two major methods of sampling you may want to consider for your research: **probability sampling** and **non-probability sampling**.

POINTER



If you decide to conduct the telephone survey in-house, we recommend using the non-probability sampling method. This method is simpler to enforce and more cost-effective.

Probability Sampling Methods: Probability sampling is any sampling strategy in which members of the target population are selected at random. In other words, everyone in your target population has an equal chance of being surveyed. These samples follow probability theory—we know what the odds are that we have contacted a representative portion of the population.

Furthermore, probability sampling results in expected error ranges. For example, the margin of error for a sample of 500 from a large population is plus or minus 2.6 to 4.4 percentage points. For example, if 90% of the 500 parents you survey report that the community needs more after-school sports programs, between 87.4% and 92.6% of all parents in your area should perceive a need for more after-school sports programs. There are a variety of ways communities can employ probability sampling methods to contact potential survey respondents, depending on the resources available to them.

For more detailed information about significant differences and margins of error



SEE WORKBOOK I

Where Do You Get Sample?

Databases for sale

You can purchase databases of telephone numbers and addresses from research sample vendors, such as Survey Sampling International (SSI) (www.surveysampling.com), ASDE Survey Sampler (www.surveysampler.com), and other vendors. Such vendors can supply lists for targeted samples (e.g., residents with specific characteristics, such as age, income, ethnicity), business samples, and random digit telephone samples (i.e., identifying all the three-digit telephone prefixes for the relevant cities and towns in the area to be surveyed, generating the remaining four digits of each telephone number randomly, and conducting an advanced screening of the resulting telephone numbers to exclude businesses, disconnected numbers, or numbers within non-working telephone number blocks). These databases are more expensive than other methods, but can yield high-quality samples for many different sampling strategies in a short period of time. You can expect to pay somewhere between \$350 and \$450 to purchase a random digit telephone sample for a survey of 200 residents.

Local telephone books

Local telephone books are a less costly alternative to purchasing databases of residents' telephone numbers and addresses. If you use this method, be sure to employ a randomizing strategy. An effective randomizing strategy is to take every 15th, 27th, and 40th line (for example) in the telephone book. You can measure the space between the top of the page and the 15th, 27th and 40th line, and mark these spaces on a ruler. Because these spaces will be consistent on each page, you can then use the ruler to quickly go through each page and find the telephone number or address for the resident on each of these lines.

Non-Probability Sampling Methods: In non-probability sampling, members of the target population are not randomly selected. Rather, people are chosen for the research because they are readily available or have specific characteristics; for example, by approaching students or parents at a community center or in school.

For the Learning in Communities project in Rhode Island, a nonrandom (“convenience”) sampling methodology was used to generate phone numbers for a telephone survey of parents. First, we conducted a demographic analysis of the community we planned to research, in order to understand the characteristics of area residents. We selected six schools that were likely to be representative of the community, as the demographics of students in these schools were similar to the demographics of the larger community. We next identified ways to get the best cross-section of students within these schools. We determined that students’ lunch period was the best opportunity to reach a good cross-section of students, and this is likely to be the case at other schools as well.

We obtained the list of telephone numbers for the survey of parents from middle school students at these schools. Researchers asked students for the names and telephone numbers of their parents, and permission to call them to do the telephone survey. We asked for this information from students who did not complete surveys as well as those who did complete surveys. One important note regarding sample for telephone surveys is that it may privilege more highly educated and affluent parents, as this population usually moves less often and has more stable telephone numbers.

	PROBABILITY SAMPLING	NON-PROBABILITY SAMPLING
Description	Members of the target population are selected at random	Members of the target population are selected in a nonrandom manner
Advantages	<p>Increased likelihood that findings will be applicable to the larger population</p> <p>Sampling error (the degree to which the sample might differ from the population) can be calculated and reported</p>	Convenient and practical method for identifying survey respondents, particularly in situations when lists of potential respondents are difficult to obtain
Disadvantages	<p>May not obtain information from enough members of a subgroup of interest</p> <p>Can be more time-consuming and costly</p>	<p>Sampling error is unknown</p> <p>Respondents may be unlike the target population</p>

Basic Rules of Thumb Regarding How Many People to Interview

- ▶ **Major groups of the target population**, such as those living in specific areas, should include a minimum of 100 respondents. For example, if you are surveying parents in two discrete geographic areas such as counties, and you want to analyze any differences between the residents of these counties, you should interview a minimum of 100 people in each county.
- ▶ **Smaller subgroups**, such as those of specific ages, should generally include at least 20 respondents of each type. For example, if you want to understand how older parents think vs. how younger parents think, you might want to analyze the differences between people of different ages. First, you would create categories like “Parents Age 18 to 34” and “Parents Age 35 and Older.” For each of these categories, you would ideally like to have at least 20 respondents that fit the description.
- ▶ **Never discuss findings of groups with less than 10 respondents**—it is generally recognized that groups consisting of less than 10 respondents cannot be analyzed statistically.

Achieving the Number of Interviews You Want. An important consideration when drawing your sample for your survey is the number of completed interviews you ultimately want to achieve—you need to have a sufficient amount of telephone numbers to get the number of completions you want. For a typical telephone survey, the basic ratio of telephone numbers to completions is 10:1. For example, you generally need 2,000 telephone numbers to complete 200 interviews. For a telephone survey of 400 people, you would need 4,000 telephone numbers.

You can expect the ratios to change depending on the nature of the research you are conducting. For example, if you have a short questionnaire on a topic that is of great interest to your target population, you will probably need a smaller sample to get the number of completed interviews you need. Conversely, a long questionnaire on a topic that is not of great interest is likely to need a higher ratio of pieces of sample to completed interviews, as respondents may be more likely to refuse or end the interview midway through the questions.

A Caution About Telephone Interviewing

According to the 2000 Census, **about 93% of U.S. households have telephone service.** That means that you may be able to reach most—but not all—area residents using telephone numbers. Less affluent households are especially likely to lack telephone service. If your community has large proportions of low-income households, you may want to consider an alternative or supplemental strategy for contacting these potential respondents to ensure that your research findings are representative of the local population.

2. Developing a Questionnaire

You can use a questionnaire to find out what people think about local OST programming by asking them questions about their beliefs, feelings, opinions, needs, and personal characteristics.

What is a Questionnaire?

- ▶ A structured way of organizing an interview
- ▶ A structured way to ask questions and not forget important topics
- ▶ Consistency in the way questions are asked from person to person
- ▶ A way to organize people's thoughts to help them respond

Your questionnaire will be made up of the following components:

- ▶ **Introduction.** The interviewer introduces him or herself, explains the reason the research is being conducted, and asks the respondent to complete the survey.
- ▶ **Screener.** A series of questions designed to eliminate, or “screen out,” respondents who are ineligible to complete the survey. For example, if you are conducting a survey of parents of school-age children, you would want to screen out anyone who does not have school-age children.
- ▶ **Survey questions.** There are two main types of questions you can use in questionnaires, depending on the type of information you are trying to get:
 - *Closed-ended questions.* The respondent is asked to answer on a scale (e.g., excellent, good, fair, poor) or select a response from a list of possible responses. Closed-ended questions will generally make up most of the questions in your survey.
 - *Open-ended questions.* The respondent is asked to respond to the question in his or her own words. Due to their length and complexity, open-ended questions are usually kept to a minimum in surveys.
- ▶ **Demographic questions.** At the end of your survey, you may ask respondents questions about their demographic characteristics (e.g., gender, age, race or ethnicity, primary language, income, etc.), in order to identify how different types of people feel about different OST issues.
- ▶ **Conclusion.** Thank the respondent for completing the survey and end the interview.

Steps Involved in Questionnaire Design

1. **BEGIN BY IDENTIFYING GOALS FOR THE SURVEY**
 - ▶ Start with goals, rather than specific questions.
 - ▶ What issues are important to cover?
 - ▶ What decisions do you need to make?
 - ▶ What information do you need to make those decisions?
 - ▶ What information is critical for decision-making, and what is just interesting?
 - ▶ Are there other sources that could be used to get this information?
2. **ORGANIZE AND SET PRIORITIES**
 - ▶ Weed out things that are interesting but not tied to decisions.
 - ▶ Focus on the most important, key goals.
 - ▶ Organize goals in an order that seems logical and reasonable.
3. **FOR EACH GOAL, WRITE QUESTIONS**
 - ▶ What specifically do you need to know regarding this goal?
 - ▶ Should you ask one question, or several, to address each goal?
 - ▶ It is easier to measure behavior, and harder to measure attitudes.
 - ▶ See the following pages for specific tips on how to write good questions.
4. **PILOT-TEST THE QUESTIONNAIRE**
 - ▶ Pick a small group (e.g., five or six respondents) and interview them as a pilot test.
 - ▶ Time the interview. Is it too long, or too short given the topic? (Short is better.)
 - ▶ Listen or watch for words or questions that confuse people or don't make sense.
 - ▶ Listen or watch for questions that don't get the information you want.
 - ▶ Listen or watch for questions that seem to bias people; that is, questions that encourage people to answer in a certain way.
 - ▶ Listen or watch for questions that cause long discussions or arguments.
 - ▶ Is the interview boring, silly, or does it provoke emotions inappropriately?
 - ▶ Is anything missing from the interview, given how people responded?
5. **REVISE THE QUESTIONNAIRE**
6. **TRANSLATE THE QUESTIONNAIRE, IF NECESSARY**
 - ▶ Do you anticipate a large number of non-English speaking respondents?
7. **CONDUCT THE INTERVIEWS**

Writing Good Questions

1. Use plain, simple, understandable language

- ▶ Write as though you were speaking: use oral language
- ▶ Use complete sentences
- ▶ Avoid fancy or clever sentence structure
- ▶ Avoid slang, jargon and lingo
- ▶ Avoid abbreviations unless you are sure they are commonly understood
- ▶ Short questions are easier for people to answer than long ones
- ▶ If you don't understand the question, no one else will

2. Ask purposeful questions

- ▶ Questions should be logically related to your research objectives

3. Ask concrete questions

- ▶ Questions should be precise and unambiguous, so that two different respondents can be expected to interpret them and respond in a consistent manner
- ▶ More specific questions lead to more reliable responses
- ▶ For questions about behavior, include a time frame (e.g., how often have you done this in the past three months)

4. Behavior versus attitudes

- ▶ Behavior = what people do
- ▶ Attitudes = what people think about what they do
- ▶ Attitudes are not always a good predictor of future behavior
- ▶ If you can measure both behavior and attitudes, do so
- ▶ Don't be afraid to ask about unpopular behavior (people will usually answer)

5. One issue per question

- ▶ If you are really covering two issues, ask two questions
- ▶ Make sure the categories you give for responses match the question

6. It is unethical to waste people's time in a survey

- ▶ Ask the questions you need to help you make decisions; do not ask unnecessary questions just because the answers might be interesting
- ▶ People will usually tolerate answering questions for about ten to fifteen minutes (approximately 75 questions, including three or four open-ended questions). Beyond that, you risk them ending the interview

7. Possibility of bias

- ▶ If you are trying to express an opinion in the question, you are creating a bias
- ▶ If you are afraid your question will get the wrong response, you are creating a bias

Question Review Process

In order to ensure your questionnaire is in good shape, it is highly recommended that you follow the following seven-step question review process:

1. Does the question make sense? Do I understand it?
2. Can the question be answered? Could I answer it?
3. Is this the right question?
4. How would I react if someone asked me this question?
5. Am I asking only one question, or do I need two questions?
6. Does the question include jargon? Complex language? Could I ask it differently without using those terms? If not, provide a clear explanation of the terms so respondents know what you are talking about.
7. Would someone who is not like me and who does not think like I do understand and be able to answer this question? For example, someone who:
 - ▶ Belongs to a different race, ethnicity, or culture
 - ▶ Lives in another part of the country or world
 - ▶ Is less educated, or more educated than I am
 - ▶ Is from a different generation
 - ▶ Has a different political or religious orientation than my own
 - ▶ Grew up or is part of a different socioeconomic class
 - ▶ Is part of a group whose views I do not agree with or who I dislike

Strategies for Common Types of Questions

The following section provides examples of successful question wording and response scales for the types of questions your community may want to include in a survey. You can use these examples as a guide for developing questions to add to the prototype survey included in this manual.

1. SCREENERS

In this example, the population we are trying to survey is parents of middle school age boys and girls in Providence. The screener is designed to eliminate potential respondents who do not meet these criteria.

1. First, do you have any children that are in middle school in Providence?

- Yes
 --No--TERMINATE

**2. What grade is your middle school child in?
[IF MORE THAN ONE, SAY YOU'D LIKE THEM
TO THINK ABOUT THE MIDDLE SCHOOL CHILD
WHO HAD THE MOST RECENT BIRTHDAY]**

- Sixth grade
 --Seventh grade
 --Eighth grade
 --Won't say-refused [DON'T READ]--THANK AND TERMINATE

Asking about the child with the most recent birthday is a method for randomizing respondents.

3. Is your middle school child:

- Male
 --Female
 --Won't say-refused [DON'T READ]--THANK AND TERMINATE

2. MEASURING AWARENESS

Unaided Awareness:

This scale includes all the OST programs the researcher knows about in the area, and includes an option for respondents to name additional programs the researcher may not be aware of, as well as an option for the respondent to say he or she is not aware of any, or doesn't know the names of the programs.

When you think of after-school programs in your area, which first come to mind? [DO NOT READ LIST]

- None
 Hillside Afterschool
 Valley Boys and Girls
 Green River Program
 Don't know
 SPECIFY OTHER

It is important that the interviewer not read the list to respondents to get a more accurate sense of the OST programs that people think of on a "top of mind" basis.

→ **Single-level or multi-level**

You can structure these questions so they are **single-level** (the respondent can give one answer only) or **multi-level** (the respondent can name as many programs as he or she is aware of, and the interviewer checks all programs named).

Aided Awareness:

How familiar are you with Hillside Afterschool?

- Very familiar
- Somewhat familiar
- Not familiar or don't know

This is a good scale to use to assess the extent to which respondents feel familiar with a particular organization or program.

Knowledge:

Before this interview, were you aware that Hillside Afterschool has two competitive sports leagues for students in grades six through eight?

- Yes, aware
- No, not aware, or don't know

3. INTEREST OR DESIRE

How interested are you in having your middle school child learn new skills like carpentry, clothing design, or architecture?

- Very interested
- Somewhat interested
- Somewhat uninterested
- Very uninterested
- Don't know [DON'T READ]

This scale is balanced: there is an equal number of responses for "interest" and "lack of interest."

How interested are you in having your child help others through community service activities, like helping the elderly, mentoring younger children, or cleaning up local parks?

- Very interested
- Somewhat interested
- Somewhat uninterested
- Very uninterested
- Don't know [DON'T READ]

Which of the following arts and culture programs are you most interested in for your child?

- Photography
- Theater
- Dance
- Art
- Video or radio production
- Music
- Writing or poetry
- Don't know [DON'T READ]
- SPECIFY OTHER

This type of question is good for understanding what the highest priorities are. You may find that many respondents will say they are *very interested* in numerous activities, and this type of question will help you identify the one or two activities that are of greatest interest. You can include an option for respondents to mention additional activities if you choose.

4. IMPORTANCE

How important are each of the following things to you in choosing an after-school activity for your middle school child?

That it teaches your child new skills?

- Very important
- Somewhat important
- Not important
- Don't know [DON'T READ]

That the activity is fun?

- Very important
- Somewhat important
- Not important
- Don't know [DON'T READ]

That it makes your child feel safe?

- Very important
- Somewhat important
- Not important
- Don't know [DON'T READ]

Which of the following would be MOST important to you in choosing an after-school activity for your middle school child?

- That it teaches your child new skills
- That the activity is fun
- That it makes your child feel safe
- Don't know [DON'T READ]

Three-point scales like this are good for assessing familiarity (see above) and perceived importance. For these types of measures, you generally will not need an option for *somewhat unimportant* or *somewhat unfamiliar*—people are likely to be familiar with something, or not at all, and find things important to some extent, or not at all.

5. PAST AND LIKELY FUTURE BEHAVIOR

When your middle school child is at home after school, how often does [he or she] have responsibility for watching younger brothers and sisters?

- Almost always
- Frequently
- Sometimes
- Seldom
- Never
- Don't know [DON'T READ]

This is a good scale for measuring the frequency with which something occurs. If you are measuring something that could realistically happen *always*, you could include this option on the scale.

Out of five weekdays, how many days does your child spend at someone else's home after school, where there is an adult present?

- None
- One
- Two
- Three
- Four
- Five
- Varies [PROBE FOR A TYPICAL WEEK OR ON AVERAGE] [DON'T READ]
- Don't know [DON'T READ]

This scale accounts for each weekday and includes options for *none*, *varies*, and *don't know*. You can use this type of question to find out the average number of weekdays respondents are engaged in a particular activity.

If an after-school program offered after-school activities you were interested in, how many weekdays would your child go there?

- None
- One day a week
- Two days a week
- Three days a week
- Four days a week
- Five days a week
- Varies [DON'T READ]
- Don't know [DON'T READ]

How likely would your middle school child be to attend these programs if you had to pay \$10 a day for them to attend?

- Very likely—SKIP THE NEXT QUESTION
- Somewhat likely
- Not likely
- Don't know [DON'T READ]

How likely would your middle school child be to attend these programs if you had to pay \$5 a day for them to attend?

- Very likely
- Somewhat likely
- Not likely
- Don't know [DON'T READ]

To understand parents' cost tolerance for programs, ask questions on a two- or three-tiered basis, beginning with the highest possible cost option, and going down from there. If someone is very likely to pay \$10 for a program, there is no need to ask them if they would be very likely to pay \$5— you can assume they are just as likely to pay less!

6. SATISFACTION

Overall, how satisfied are you with the quality of Hillside Afterschool's sports activities?

- Very satisfied—ASK "A" BELOW
- Somewhat satisfied— ASK "A" BELOW
- Somewhat dissatisfied— ASK "B" BELOW
- Very dissatisfied— ASK "B" BELOW
- Don't know

Open-ended questions like those below are a good way of understanding the strengths and weaknesses of existing OST opportunities.

A. In what ways are you satisfied? What do you like most about the Green River Program? [RESPONDENT ANSWERS IN THEIR OWN WORDS]

B. What do you like least about the Green River Program, or what would you change? [RESPONDENT ANSWERS IN THEIR OWN WORDS]

How much do you like how your child spends his or her time after school?

- A lot—SKIP THE FOLLOW-UP QUESTION
- Some
- A little
- Not at all
- Don't know [DON'T READ]

What do you dislike about how your child spends his or her time after school, or what would make it better? [RESPONDENT ANSWERS IN THEIR OWN WORDS]

7. PREFERENCES

Imagine that we are creating an after-school program. The program could be in one building with a variety of different activities or there could be activities at different locations. For example, your child might go play basketball at one location and go to another location for music lessons.

Which of these two do you prefer?

- All activities located at a single location
- Different activities located in different locations
- No preference [DON'T READ]
- Don't know [DON'T READ]

This type of question forces respondents to choose between two options.

On weekdays, would you prefer that your middle school child participates in activities:

- Right after school, beginning around 2:30 or 3:00
- In the late afternoon, beginning around 4:00 or 5:00
- In the early evening, beginning around 6:00 or 7:00
- After school and in the late afternoon [DON'T READ]
- After school and in the early evening [DON'T READ]
- In the late afternoon and in the early evening [DON'T READ]
- All three times [DON'T READ]
- No preference [DON'T READ]
- Don't know [DON'T READ]

8. BARRIERS

Next, I'm going to list some reasons your middle school child might not participate in activities.

How much of a problem is transportation, or not having a good way to get to activities?

- A big problem
- A small problem
- Not a problem
- Don't know [DON'T READ]

How much of a problem is having other kids in the program who have bad attitudes, or seem threatening to your child?

- A big problem
- A small problem
- Not a problem
- Don't know [DON'T READ]

8. DEMOGRAPHIC QUESTIONS

My final questions are for statistical purposes only.

What is the language that is spoken most at your home?

- An Asian language (e.g. Chinese, Vietnamese, Cambodian)
- English
- Spanish
- Won't say-refused [DON'T READ]
- SPECIFY OTHER

Which of the following best describes the grades your middle school child is getting this year?

- Mostly As
- Mostly As and Bs
- Mostly Bs
- Mostly Bs and Cs
- Mostly Cs
- Mostly Cs and Ds
- Mostly Ds and below
- Don't know [DON'T READ]

Demographic questions like these will help you understand the characteristics of the people you have included in your research, and will enable you to break down responses and attitudes by these characteristics. For example, if you ask about ethnicity, you can understand what types of activities are preferred by Caucasian students, what activities are preferred by African-American students, and what are preferred by Hispanic students.

Which of the following broad categories best describes your total household income for the past year before taxes:

- Under \$20,000
- \$20,000 to \$35,000
- \$35,000 to \$50,000
- Over \$50,000
- Won't say-refused [DON'T READ]

INTERVIEWER: RECORD RESPONDENT'S GENDER

- Male
- Female

3. Conducting a Pilot Test

Before any survey is ready to be called on, it must be pilot-tested. Piloting should ideally be done by **experienced interviewers or in-house staff** who have a better-than-average knowledge of survey structure and general procedures, a keen sense of judgment, and acute attention to detail. The **responsibilities of pilot-testing include**: catching any problems with the skip patterns (questions that should not be asked of certain respondents); reporting any problems that respondents have with the survey, and pointing out any information that will need to be included on the Answers to Potential Questions (APQ); mentioning things that will need to be clarified on the training tape; making sure that the survey's wording is both easily understood by respondents and feasible for interviewers; and gauging the persuasiveness of the introduction and making suggestions to improve it.

What is a pilot test?

A pilot test is a series of **practice interviews** that give you the chance to test the survey instrument with respondents before finalizing it and beginning data collection. Typically, you would complete interviews with between **eight and ten people** from your list of telephone numbers for the survey. If you make minimal changes to the questionnaire following the pilot test, these interviews can be included in your total number of completed interviews.

Things to Look For During Piloting:

- ▶ **Anything confusing or unclear.** Anything that you have a question about is probably something that other interviewers will also have questions about. If it is something that will require special attention on the training tape, note that information down.
- ▶ **Simple typos.** Make sure you eliminate any spelling errors or grammatical mistakes.
- ▶ **Inconsistencies in the questionnaire.** For example, a missing “*excellent*” response in a set of questions whose responses should obviously range from “*excellent*” to “*poor*.”
- ▶ **Additional response options needed.** There may sometimes be a response that we did not anticipate a need for, but that respondents are consistently wanting. For example, if you find that respondents are consistently saying “don’t know,” but the responses for that question do not include such a choice, you may want to suggest that the response choices include an option for “*don’t know*.”
- ▶ **Biasing or leading wording.** Questions, phrases, or introductions that may influence the respondent into answering a certain way.
- ▶ **Difficult phrasing.** Questions that are difficult for the interviewer to read and/or difficult for the respondent to understand.

- ▶ **Sample problems.** Are you reaching unusually large proportions of disconnected numbers, business phone numbers, or ineligible respondents? Is the sample missing any pertinent information (such as phone numbers)?
- ▶ **Estimated durations.** How long will it take interviewers to complete a survey with a respondent? This should be calculated based on the time pilots spend actually calling on the survey, not including time spent taking notes. This will help you estimate completions per hours (CPH), which in turn will help you estimate the length of time you will need to complete data collection.
- ▶ **Persuasiveness of introduction.** How willing are people to go through the survey after hearing what it is about? If you had trouble getting people interested, what types of variations to the introduction were successful?
- ▶ **Skip patterns** (questions that should not be asked of certain respondents). Do all of the skips go to the right place? Does every skip have a “Skip to Question X” next to the appropriate response?

4. Conducting the Telephone Interviews

In this section, we will present information regarding how to collect data via telephone interviews. This will include interviewer recruitment and basic training information for conducting telephone interviews. Training information will include methods for convincing people to complete a survey, as well as strategies for getting high-quality data during the interview, and techniques for probing on open-ended questions.

Recruiting Interviewers

First, you will need to evaluate your budget to determine whether you are going to recruit paid interviewers or volunteers. Using paid interviewers is highly preferable, as this option is more likely to result in high-quality interviews. Volunteers are likely to be highly invested in the subject matter, which may affect their objectivity while interviewing. Also, if you decide to recruit volunteers, you will have less discretion as to the quality of your interviewing staff. Regardless of whether you decide to use paid or volunteer interviewers, potential interviewers should be informed that this style of interviewing is highly controlled and does not allow for flexibility or chatting with respondents casually while conducting the survey. Providing potential interviewers with this type of information should help them to determine on their own if they are suitable for this type of work. For example, you could inform potential interviewers that:

- ▶ The questionnaire should be read exactly as written for every interview.
- ▶ There is an estimated average duration for the survey, and interviewers will need to achieve a certain number of completed surveys per hour.
- ▶ Interviewers have no choice in the people that they call, apart from not interviewing people they know, and terminating interviews with respondents who they believe are not giving genuine answers, or who are abusive to the interviewer.

If you decide to recruit paid interviewers, offer a competitive hourly wage. Between \$10 and \$11 per hour (in 2006) should enable you to attract high-quality interviewers at what would still be a significant cost savings from outsourcing data collection. If possible, hire interviewers with surveying experience, as these interviewers will require less extensive training. Bear in mind that you are hiring people for a temporary position that may only last two to four weeks. Interviewers will not have a chance to develop their skills over a long period of time; use interviewers who have a high level of competence from the beginning. You may also want to avoid hiring interviewers with telemarketing experience, as the phone demeanor used is quite different than what is desirable for telephone interviewing.

To generate interest in the position, your approach will probably depend on whether you decide to recruit paid interviewers or volunteers. Volunteers for interviewing are more likely to be recruited through networking. For paid interviewers, use ads in local newspapers and possibly flyers to advertise the position. Apart from a basic job description, include in advertisements for the position:

- ▶ That it is a temporary, part-time evening job.
- ▶ That the position requires punctuality, and the ability to remain focused on task and think on your feet.
- ▶ A phone number for applicants to call, as this will give you the opportunity to assess their phone demeanor.
- ▶ Interviewers should be able to read aloud in a natural manner, write clearly, and have a pleasant, yet professional phone demeanor. This manual assumes that interviewers will be conducting the interviews using printed hardcopies of the questionnaire, but if interviewers will be entering responses into a computer, be sure to test for typing skills.

Example of Calculating the Number of Interviewers to Recruit

1. You plan to conduct 300 interviews with parents of ninth graders in your school district.
2. The average duration of the survey is 15 minutes.
3. Sample was generated by sending home permission slips with students, and parents who were interested in participating provided their name, telephone number, and the best times to reach them.
4. You were able to generate an appropriate amount of sample to complete the survey.
5. Given the relatively short duration of the survey, and that respondents were pre-recruited, you expect that 90% of the people you contact will be eligible to complete the survey, and that 80% of the people you contact will actually complete a survey.
6. Given the high level of expected cooperation, estimate that interviewers will be able to achieve an average of two **completions per hour (CPH)**.
7. You plan to conduct five three-hour shifts per week with four interviewers per shift.
8. All interviewers will be required to work a minimum of three shifts per week.
9. Your goal is to complete data collection within three weeks.

To calculate the number interviewers need in this scenario:

- ▶ Multiply the # of shifts per week (5) by the # of interviewers per shift (4) to get 20 total shifts per week.
- ▶ Multiply the total shifts per week (20) by the # of hours per shift (3), and get a maximum of 60 hours of interviewing per week.
- ▶ Subtract 15 minutes per person per shift for breaks.
- ▶ The adjusted # of interviewing hours per week = 55.
- ▶ Multiply the # of interviewing hours (55) by the expected CPH (2).
- ▶ The approximate # of completions per week to expect = 110, which should be sufficient to finish data collection within three weeks.
- ▶ In order to determine how many interviewers to hire, divide the total shifts per week (20) by the minimum # of required shifts per interviewer (3) to get 6.7.
- ▶ Based on these calculations, six to seven interviewers should be sufficient to complete the study within your timeline.

When determining the number of interviewers to recruit, you will need to consider several factors, including:

- ▶ The total number of interviews you plan to complete.
- ▶ Your overall timeline for the project.
- ▶ The number of shifts per week you will be able to hold, and the length of those shifts.
- ▶ The number of interviewers you want to schedule per shift.

The following sections describe how to conduct high-quality telephone interviews.

Interviewing: Refusal Conversion

The first step in conducting a good telephone survey is to get someone to agree to participate in the interview in the first place. Ideally, the introduction to the survey should be persuasive enough that your potential respondents will be highly interested in completing a survey. Unfortunately, this is not always the case, no matter how compelling or important the topic, and no matter how well the introduction has been written.

If too many people refuse to go through a survey, this may also impact the reliability of your data. For example, if you are conducting a survey of area parents, you want your findings to be representative of all area parents—not just the helpful ones who like doing surveys and have lots of extra time to spend on the phone. The attitudes and activities of people who are “natural-born volunteers” with lots of free time may bear little resemblance to those of parents in general.

Therefore, you must make every attempt to get people who are initially not interested in the survey to complete a survey. We call this “refusal conversion.” Here are some refusal conversion strategies:

- ▶ **Ask the screener questions.** It may be that the respondent is not even eligible to complete the survey; for example, if you are trying to reach parents with children in elementary school, perhaps the person you are speaking to does not have children. If it turns out that they are eligible, give conversion another shot; you got them to stay on the phone for three questions, see if you can keep them for more.
- ▶ **Don’t talk too fast.** Talking fast is a sales tactic. You will appear more confident and legitimate if you are able to clearly explain the purpose of the survey.
- ▶ **Emphasize the duration,** if the survey is short. Stress that the survey will only take a few minutes of their time and that you will go as quickly as possible.
- ▶ **Work on the introduction.** Interviewers should work with supervisors to make the introduction sound more interesting, and include extra pieces of information that could be important to the respondent. For example, it may be helpful to include in the introduction that this is not a sales call of any kind.
- ▶ **Stress that the survey is important.** Use strong language. “This is a very important survey designed to directly impact the services and programs available to your children, and it should only take about ten minutes to complete. Is now a good time for you?”
- ▶ **Be sure your conversion tactic answers their concern.** For example, if the respondent tells you they don’t want to buy anything and you tell them it will only take a few minutes of their time, you haven’t addressed the fact that it isn’t a sales call. Convey to

the respondent that you're listening to what they have to say by using the refusal conversion tactic that best answers their question. It's a great way to develop rapport!

- ▶ **Offer to call back.** It may very well happen that you've just reached this person at a bad time. Make it clear that it is so important that you get their opinions that you'd be happy to call back whenever is best for them.
- ▶ **Call back hang-ups.** The worst case scenario has already happened—somebody refused the survey. Calling back makes it possible to give them more information about the survey that they might not have understood and they will then complete an interview.
- ▶ **Don't let a refusal (or two!) get you down.** It happens to the best interviewers. Some people just don't do surveys, and it may be beyond your control. Interviewers should talk with supervisors about how they could have handled a situation differently. The most important thing is that interviewers are putting their best effort into converting refusals.

There are many specific phrases one can use when converting refusals into completions. Following is a sample of common concerns or questions from potential respondents, and specific language you can use to help these people understand the importance and value of completing your survey.

Hangs up before hearing reason for survey. Call back!

1. "I want to make sure you understand that I'm not selling or promoting anything. I'm calling in regard to a very important study we're doing that will have a direct impact on the types of activities and programs that are available for children in our community. I was wondering if this would be a good time to go through the survey with you. It only takes about [NUMBER OF] minutes."

2. "I'm sorry, I realize I've called at a bad time, but we are conducting a very important study that will have a direct impact on the types of activities and programs that are available for children in our community and I'd like to have a chance to get your opinions. When would be the best time to call you back?" (Be sure to use assertive language such as, "When can I call you back?" instead of "Can I call you back?")

Hangs up after hearing reason for survey. Call back!

1. (Assume it was accidental) "I think we got disconnected. I was in the middle of explaining this very important study we're conducting about the activities and programs that are available for children in our community. We're not selling or promoting anything and we'd like a chance to get your opinions. The survey only takes about [NUMBER OF] minutes—is now a good time?"

2. "I want to make sure you understand that this is a very important study that will have a direct impact on the types of activities and programs that are available for children in our community. It's very important that we get your opinions, and if now is not a good time, I'd be happy to call you back whenever is most convenient for you."

3. "I realize I may have called at a bad time, but I was hoping to speak to the person in your household who is responsible for making decisions about what your child does after school. When might be the best time to call back for him or her?"

I'm not interested.

“The results of this survey will have a direct impact on the types of programs and activities your children have available to them. This is your best chance to make sure your opinions are taken into consideration. It only takes about [NUMBER OF] minutes and if this is a bad time I'd be happy to call back whenever is most convenient for you.”

I don't have time for this.

“The survey only takes about [NUMBER OF] minutes and I can assure you that your responses will have a direct impact on the programs and activities that are available to your children. If now is not a good time, when would be the best time to call you back?”

I don't like answering questions over the phone.

“I understand your concern, but we're actually just looking for general opinions. Why don't I try reading you a few questions and we'll see how it goes? Of course, if there are any questions you don't want to answer, just let me know.”

I only do surveys through the mail, just send it to me.

“The reason we do surveys over the phone is because it's much faster and more accurate, and because I will be available to answer any questions you may have about the survey itself. It only takes about [NUMBER OF] minutes and if now is not a good time, I'd be happy to call you back whenever is most convenient for you.”

The person who makes those decisions doesn't do surveys—don't bother calling back.

“Thank you for that information, but I will need to speak with him/her for a moment just to make sure he/she understands the importance of the study. When would be the best time for me to reach him/her?”

I'm satisfied with things the way they are / I don't have any complaints.

“We're very interested in speaking to people who are satisfied as well as dissatisfied, so that we can identify what types of programs and services should be continued or expanded as well as those that should be discontinued or changed.”

I wouldn't know anything about that / I don't use those services.

“It's still very important that we get your opinions. We are interested in knowing what people should be informed of as well as what they already know. *Don't know* is a valid answer to any of the questions.”

Just put me down as being happy with everything.

“My computer is formatted so that I'm unable to do that. We have questions on many different aspects of after-school activities, and it's important that we record all your opinions accurately.”

Interviewing: Open-Ended Responses

Open-ended questions are questions in a survey that allow a respondent to give a verbatim response. Open-ended responses should always be recorded as close to verbatim—that is, in the respondent’s own words—as possible. Try to get at least two or three detailed ideas for each open-ended question. You will need to probe in order to get the best and clearest responses to open-ended questions. Responses to open-ended questions should always contain lots of detail, and no general or vague responses. We get detail from respondents by probing. Every probe used by an interviewer must be general, and not bias their response. Acceptable probes do not lead a respondent into any particular answer, only into saying more.

PROBE ON VAGUE WORDS OR CONCEPTS	
IF THEY SAY:	YOU COULD SAY:
“It’s good.”	“What makes it good?”
“It’s bad.”	“What makes it bad?”
“It’s better.”	“What is it better than?”
“It’s worse.”	“What specifically makes it worse?”
“It’s in/convenient.”	“What about it is in/convenient?”
“It’s high/low quality.”	“In what ways is it high/low quality?”
“Its reputation.”	“What have you heard about its reputation?”
“The cost.”	“What about the cost?”
“It’s close.”	“Close to what?”

It is very important not to make any assumptions about what the respondent will say, or in other words, to lead them into a particular response. Using more general probes will allow the possibility for a wider range of responses, and possibly more responses as well.

PROBE IN A NON-LEADING, UNBIASED WAY	
SAY THIS:	INSTEAD OF THIS:
“What is better about it?”	“Is it better because it’s less expensive?”
“What is it close to?”	“Is it close to home?”
“What about the cost?”	“Is it too expensive?”

Once you have probed for and recorded detail about your respondent’s first idea, the next step is to probe for additional ideas. Try to get at least one or two more. It is important not to use a probe like “anything else?” or “nothing else?” This type of probe gives the respondent the impression that you want to move on to the next question and encourages them to say, “No,” and move on. The proper probe for getting additional comments is to ask, “What else?” This assumes the respondent has more to say and encourages them to make another comment. Continue to ask “What else?” and probe for detail until your respondent has nothing else to say.

Here is an example of probing in action:

Interviewer: *“What do you like most about the Maple Hill After School Arts Program?”*
Respondent: *“It’s good.”*
Interviewer: *“What makes it good?”*
Respondent: *“The staff is nice.”*
Interviewer: *“What’s nice about them?”*
Respondent: *“They really seem to care about my son, and they’re always friendly to me when I pick him up.”*
Interviewer: *“What else do you like most about the program?”*
Respondent: *“Well, it’s close.”*
Interviewer: *“Close to what?”*
Respondent: *“Close to my house—it’s right around the corner.”*
Interviewer: *“What else?”*
Respondent: *“Its reputation.”*
Interviewer: *“What about its reputation?”*
Respondent: *“I’ve heard a lot of really good things about the program from other moms. Everyone says you can trust them and that kids have a good time there.”*

Training Interviewers

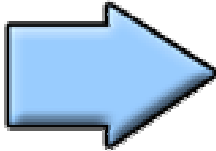
Before they begin calling, all interviewers should receive general training on how to conduct telephone interviews, as well as specific training on the questionnaire being used for the study. Refer to “How to Conduct Telephone Interviews” in this section of the manual for an overview of the general interviewer training new interviewers should receive. The training on the questionnaire to be used for the study should include an overview of what the major objectives of the study are, a question-by-question review of the questionnaire, and a review of the Answers to Potential Questions (APQ) sheet.

If possible, train all interviewers on the questionnaire at the same time. The supervisor should read through the questionnaire with the interviewers, providing them with any information they might need for particular questions, going over any skip patterns in the questionnaire (questions that should not be asked of certain respondents), and answering questions as needed. The supervisor should pronounce any unusual words and define industry-specific terms as needed (for example, if “OST” is used in the questionnaire, the supervisor should explain that this means “out-of-school time,” and can include the hours before or after school, weekends, and the summer months). The supervisor should also review the APQ, which will provide basic information about the job and suggestions for converting refusals. Interviewers should always have a copy of the APQ with them for their reference while calling.

It may not be possible for all interviewers to train on the questionnaire at the same time. If this is the case, the supervisor should make a training tape for interviewers to listen to while following along with a copy of the questionnaire and the APQ. During the training tape, just as he or she would during an in-person training, the supervisor should read the entire questionnaire, point out any skips in the questionnaire, and provide any relevant background information about the study.

After interviewers train on the questionnaire, they should run through one or two practice surveys to make sure they are familiar with the questionnaire and can pronounce all of the words easily. Interviewers can pair up and interview each other so they have experience reading the questionnaire aloud and recording responses before they start calling potential respondents.

POINTER



Interviewers should be instructed to speak in a quiet tone of voice and avoid profanity and other inappropriate comments while in the calling room, as respondents will be able to hear background noise while they are completing their interview.

Interviewing: Techniques for Conducting High-Quality Interviews

- ▶ Use a clear and professional tone, but don't be too stiff.
- ▶ Be friendly with respondents, but not overly casual. Avoid laughing.
- ▶ Beware of over-empathizing, and avoid biasing comments (for example, agreeing that the survey is tedious or that school security is terrible).
- ▶ Read all questions and responses exactly as written.
- ▶ Probe for specific responses on a scale—for instance, given a scale that includes options for *very satisfied*, *somewhat satisfied*, *somewhat dissatisfied*, and *very dissatisfied*, if a respondent answers “Satisfied,” ask, “Would you say somewhat satisfied or very satisfied?”
- ▶ Record responses to open-ended questions verbatim; that is, word for word, skipping only non-words such as “um.” Use shorthand or abbreviations to keep up with the respondent, and then correct or “clean up” responses immediately following the interview.

Generating Call Sheets and Managing Sample

After you have obtained your list of telephone numbers for the telephone survey, and before you begin calling, generate a **call sheet** for each telephone number on the list.

WHAT IS A CALL SHEET?	WHY DO WE NEED ONE?
<ul style="list-style-type: none"> ▶ A means of recording information about the status of each telephone number ▶ A means of passing along any helpful information (e.g., a contact name to ask for, best times to call) to the next interviewer to call the number ▶ A means of linking the interviewer to the interview, for feedback and supervision if needed ▶ A means of marking the outcome of each telephone number (including completed interviews, refusals, etc.) 	<div style="text-align: center; font-size: 2em; color: #0066b3; margin-bottom: 10px;">➔</div> <ul style="list-style-type: none"> ▶ Too many telephone numbers to remember what happened on previous tries ▶ Allows supervisors to decide the next action to take for each number (e.g., call back, or remove from the sample pool?) ▶ Helps ensure that each number is called back an adequate number of times, maximizing validity

Below and on the next page, we provide examples of completed call sheets. We have also included a sample call sheet for your use in the “Prototype Materials” section of this workbook.

Pleasant Valley OST Survey

Telephone number: 555 555 - 5555 Questionnaire number: 1234

Contact attempts:	Date	Time	Disposition code	Interviewer ID
1	<u>3/18</u>	<u>5:25</u>	<u>NA</u>	<u>#10</u>
2	<u>3/18</u>	<u>7:25</u>	<u>CB</u>	<u>#10</u>
3	<u>3/20</u>	<u>6:00</u>	<u>COMP</u>	<u>#10</u>
4	<u>/</u>	<u>:</u>	<u> </u>	<u> </u>
5	<u>/</u>	<u>:</u>	<u> </u>	<u> </u>
6	<u>/</u>	<u>:</u>	<u> </u>	<u> </u>

NOTES

1. _____
2. Woman said to call back 3/20 @ 6:00 - ask for MARY
3. _____
4. _____
5. _____
6. _____

This number yielded no answer on the first try, and generated a callback on the second try. When the interviewer called back, the respondent completed a survey.

Pleasant Valley OST Survey

Telephone number: (555) 555 - 5555 Questionnaire number: 12345

Contact attempts:	Date	Time	Disposition code	Interviewer ID
1	3/21	7:40	NA	7
2	3/22	5:10	NA	7
3	3/22	7:10	B	#10
4	3/22	7:30	na	5
5	3/23	6:00	INELIGIBLE	7
6	1	:		

NOTES

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

This number yielded three no answers and one busy signal on the first four tries. On the fifth try, the interviewer got someone on the phone and determined that they were not eligible to complete a survey, and this phone number was removed from the sampling pool.

Five-Step Process for Using Call Sheets

1. Supervisor **distributes a stack of call sheets** to each interviewer, and interviewers **call the number** on the first call sheet.
2. Interviewer **records the outcome of the call** as above: the date and time the number was tried, the disposition of the call (e.g., no answer, call back, completion, etc. See chart on page 43 for complete list of possible dispositions), their interviewer number or name, and any notes that might be helpful for the next caller.
3. If a telephone number must be **withdrawn from the sampling pool**, the interviewer removes this call sheet from the stack of active numbers.

Reasons a telephone number will need to be withdrawn:

- Completion: Respondent completes an interview
- Refusal: Respondent refuses to complete an interview
- Ineligible: Respondent is not eligible for the survey
- Non-working number: Disconnected, wrong number, business number, etc.

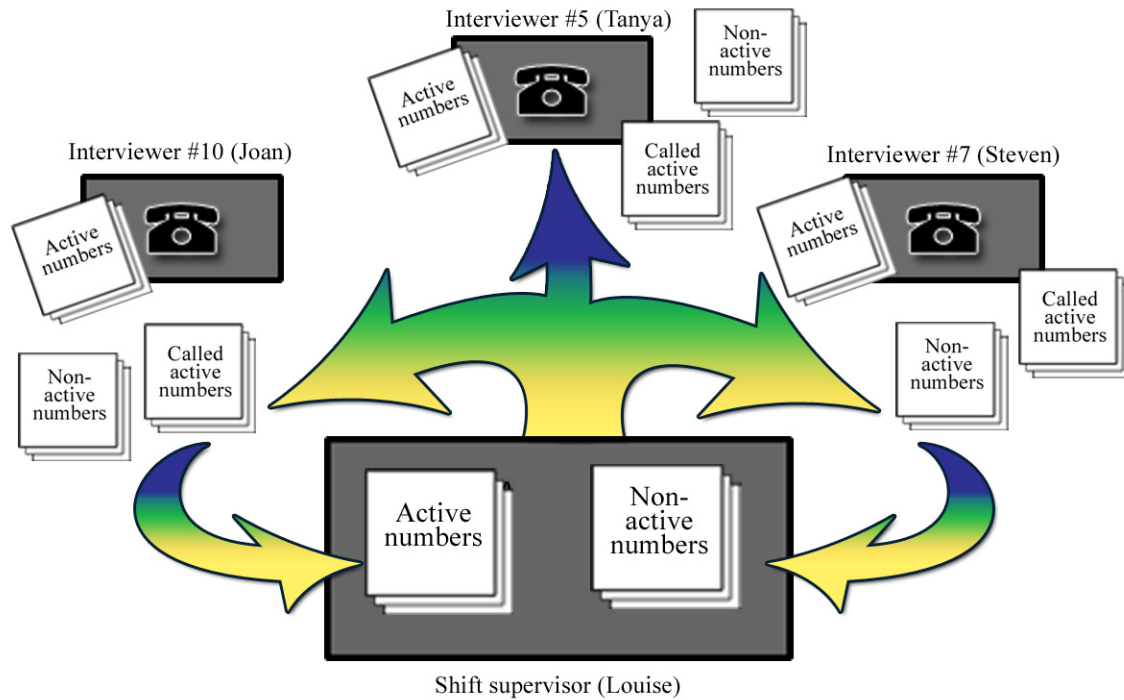
4. Supervisors **collect call sheets for active numbers** from interviewers as interviewers call on active lines, and **distributes call sheets for active numbers to interviewers**, so that numbers are called back at the appropriate time.

Order of priority for callbacks:

- Callbacks to complete: Resident has expressed intent to complete an interview, and has given the interviewer a specific time to call them back to conduct the interview.
- Scheduled callback: Resident has given a better time to call back, but without expressing intent to complete the interview.
- Callback: Active numbers will be re-tried after a pre-determined period of time. For example, if a number is tried and there is no answer or the line is busy, an interviewer should try the number in two hours, or (if there are less than two hours remaining in the shift) at the beginning of the next shift.

5. At the end of the shift, the supervisors **collects all remaining active and inactive numbers** and sorts them for the next interviewing shift.

Example of Call Sheet Management During An Interviewing Shift



Louise, the shift supervisor, distributes a stack of **50 active numbers** to each interviewer. Joan, Interviewer #10, calls the first telephone number on her stack of active numbers. There is no answer. She marks the disposition of the call “no answer” and puts the call sheet on a stack of **called active numbers** at her side. She calls the next active number, speaks to someone, and completes the survey. She marks the disposition of the call on the call sheet and moves the call sheet to a stack of **non-active numbers**.

Periodically, Louise walks through the room, **collecting the non-active numbers** and sorting them by disposition (e.g., ineligible, completion, etc.), and **collecting the active numbers** for redistribution. Call-sheets for completed interviews are attached to the hardcopy of the completed questionnaire. Louise sorts the active numbers by priority, placing the numbers that need to be called back soonest and are highest priority. Louise ensures that “no answer” call backs are redistributed among interviewers so that the telephone numbers are tried again in two hours. If a telephone number has been tried six times without resulting in a completed interview or a scheduled callback to complete an interview, Louise gives this telephone number a disposition of “never available” and moves it to the stack of non-active numbers.

An active number has a scheduled callback for 7:30. Joan scheduled the callback earlier that evening, but when the time comes for the callback, she is on the phone completing an interview with another respondent. Louise gives the callback sheet to Steven, who has just hung up the phone after getting an answering machine, and so is free to make the call. Steven calls the resident back and completes the interview.

At the end of the shift, Louise collects all active and non-active telephone numbers from interviewers and **sorts them into categories** so that they are ready for the next interviewing shift. Callbacks are **organized in descending order of priority** by the time they are scheduled to be called back; e.g., telephone numbers that should be called back at 5:30 are on top of those that should be called back at 7:30, and a scheduled callback to complete a survey at 5:30 is on top of a routine callback for 5:30.

MANAGING SAMPLE: CALL DISPOSITIONS

Examples of codes and abbreviations to track sample use

LIVE SAMPLE

(telephone numbers to keep and try again)

1	No answer	NA
2	Answering machine or voice mail	VM
3	Busy signal	B
4	Callback, or call back to complete (CBC)—this is when the respondent or someone else at the number schedules a specific time for you to call back	CB, CBC

REFUSALS

(some telephone numbers may be tried again)

5	Hung up before introduction was read	R- NI
6	Hung up during introduction or screener questions	R-I
7	Has no time – refusal	NT
8	Doesn't do telephone surveys	NS
9	Infirm – too sick or elderly	S
10	Does not speak English (if possible with your resources, arrange for non-English speaking respondents to be called back by an interviewer fluent in the respondents' primary language)	NE
11	Terminate – respondent started interview but hung up before completing	T
12	Never call – respondent was very upset to receive call; remove from future lists	NC
13	Other refusal – make a note of details	R-O

UNREACHABLE

(unusable numbers)

14	Nonworking number or fax machine	NWN
15	Nonresidential number – business	NR-B
16	Wrong address or deceased (for sample which includes respondent names)	WAD
17	Never available – respondent not available during data collection period	NAV

INELIGIBLE

18	Ineligible – screener questions rule out respondent for survey eligibility	IN
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COMPLETE

19	Completed survey or interview	COMP
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Scheduling Interviewers

Variables to Consider When Scheduling Interviewers

- ▶ The expected CPH (Completions Per Hour)
- ▶ The average number of interviewers needed per shift
- ▶ The number of shifts interviewers can work per week
- ▶ The total number of surveys left to complete
- ▶ How many shifts are going to be held each week, and how many hours each shift lasts

Before you can prepare a **schedule for interviewers**, however, you must determine days of the week and times of day during which shifts will be scheduled. The best times to call may vary depending on the region of the country, time of year, and special events. In general, however, evening hours between 5 and 9 on Monday through Thursday are considered the most productive times to call members of the general population (see chart below). Friday and Saturday evenings are generally considered the least productive times to call, although weekend afternoons can be productive. It is also worth considering scheduling some daytime shifts. This can be a good time to reach parents who do not work outside the home while they are less likely to be distracted by family demands. The schedule may also be influenced by the availability of a supervisor.

WHEN TO CALL POTENTIAL RESPONDENTS	
<p style="text-align: center;"><i>Area Residents</i></p> <p>Monday – Friday 5:00 p.m. to 9:00 p.m. Saturday and Sunday 12:00 p.m. to 8:00 p.m. <i>These times are when residents are most likely to be home, and least likely to object to the call.</i></p>	<p style="text-align: center;"><i>Area Professionals</i></p> <p>Monday – Friday 9:00 a.m. to 5:00 p.m. <i>When trying to reach area professionals, such as educators, use their likely office hours as a guideline.</i></p>

Supervising Interviewers

Every shift will require a **supervisor** to manage it. For the purposes of this manual, we are assuming that the supervisor will be a staff member of the organization that is sponsoring the research who is heavily involved in the project. If this is a full-time (40 hours per week) staff person, expect that recruiting interviewers and then managing the actual interviewing process will consume at least one-half of his or her working hours for about four weeks or more.

A supervisor's primary responsibilities during a shift include:

- ▶ Providing interviewers with the **materials they will need** for their shift, including several copies of the questionnaire, a copy of the APQ, a writing implement, and call sheets.
- ▶ **Reviewing completed surveys.** The supervisor should review completed surveys immediately after they are completed and the interviewer has finished corrections. Check to make sure that all questions are answered and that open-ended responses are legible. If there is a problem, such as a response that is unclear or skipped, check with the interviewer to see if they can provide additional information. In some cases, it may be necessary for the interviewer to call the respondent back to ask a question that was accidentally skipped. This should be done as soon as possible, to increase the chances that the interviewer will be able to reach that respondent again. Remember, only completed surveys will be included in the analysis.
- ▶ **Managing sample.** The supervisor needs to keep track of the “live” telephone numbers (i.e., those that have not yielded a terminating disposition, including completions, refusals, ineligible respondents, and unusable phone numbers), and make sure the right call backs get to the right interviewer at the right time. Numbers that are no answers should be tried twice in one night, if possible. The supervisor also needs to keep track of the “dead” sample: any telephone number that has ended in a terminating disposition. For more information regarding managing sample, refer to the information on “Generating Call-Sheets” in this section.
- ▶ Providing **training and feedback** for interviewers as needed. Feedback should be provided privately, and in a constructive manner.
- ▶ **Being available for questions.**
- ▶ **Motivating interviewers**, which will be discussed in detail in the next section.
- ▶ Creating and maintaining a **pleasant and professional atmosphere** in the calling room.

Motivating Interviewers

Two of the best ways to motivate interviewers to perform their best are through (1) friendly competition; and (2) providing rewards for performing well. The following are some suggestions that can be effective in motivating interviewers.

- ▶ Make sure interviewers know what the expected cooperation rate and number of completions per hour (CPH) is for the project.
- ▶ Keep track of each interviewer's completions during the shift on a blackboard or dry erase board.
- ▶ Be sure to provide plenty of encouragement and positive feedback.
- ▶ Provide bonuses every shift to the interviewer who performs best in some respect. The bonus could go to the interviewer with the highest CPH or cooperation rate, or to the interviewer with the best open-ended responses, for example. The bonus could be a \$10 bonus or gift certificate.
- ▶ Interviewers can also work toward winning a bonus for the best performance on some measure of quality and/or productivity, such as cooperation rate or CPH, for the project as a whole. Keep track of interviewers' cumulative performance over the course of the project, and keep interviewers informed as to where they are in the standings.
- ▶ Keep track of the rates (CPH and cooperation rate) for the project as a whole, so interviewers can compare their rates to the overall rates.
- ▶ Try to keep the atmosphere pleasant and supportive, yet professional.

How to Calculate a Cooperation Rate for Individual Interviewers

- ▶ Add together their total number of completions and refusals.
- ▶ Divide their total completions by the combined total of completions and refusals.
- ▶ For example, if Jenny got 6 completions and 2 refusals, divide 6 by 8 to determine her cooperation rate for the night: 75%.

Cooperation rates can be calculated for individual interviewers as well as for all interviewers combined. They can be calculated on a per-evening basis as well as for the entire course of the project.

5. Entering the Data

Before beginning quantitative analysis, you will need to enter your data into computer storage so that you can run statistical tests. There are many options for data entry—for example, if you have decided to use SPSS software to analyze your data, you can simply enter the data directly into an SPSS database. Some organizations will use Microsoft Excel to enter and analyze data. EpiData is a free data entry program available online; you can also download OpenOffice’s Calc, a program like Microsoft Excel, for free from the OpenOffice website (www.OpenOffice.org). Other programs available for sale include Unibase by DMAC and WinCross.

Pros and Cons of Specific Data Entry Software

SPSS	<p>PROS: One major pro is the one-stop shopping aspect of SPSS—you enter the data into storage in SPSS, and then use the same program to run statistical analyses of the data.</p> <p>CONS: SPSS is not primarily a data entry program, however, and so the lack of “tabbing” or use of the “enter” key can be frustrating.</p>
Excel	<p>PROS: The major pros are cost-effectiveness and availability—Microsoft Excel is usually a standard software package available on PCs using the Microsoft Office suite.</p> <p>CONS: Like SPSS, Excel is not primarily a data entry program, and so entering data can be time-consuming. In addition, Excel cannot handle questions with multiple responses (i.e., respondents have the option of “checking all that apply” for a question).</p>
EpiData	<p>PROS: EpiData is free and available online, and is fairly user-friendly and accessible. It also outsources materials such as codebooks for use in analysis, and offers a validity check for your data.</p> <p>CONS: EpiData is limited to 200 cases per file, however.</p>
Unibase	<p>PROS: Unibase is very flexible and accessible, offering data entry and a variety of data outputs, as well as compatibility with most other data analysis programs.</p> <p>CONS: Unibase is costly, however, with a price range of \$600 to \$1,000.</p>
WinCross 6.0	<p>PROS: WinCross 6.0 is also very flexible and accessible, offering a separate data entry module for sale, and a variety of data outputs, as well as compatibility with most other data analysis programs.</p> <p>CONS: WinCross 6.0 is quite costly, however, with prices beginning at approximately \$2,000 and proceeding up to \$50,000.</p>

When choosing data entry software, **be aware of any limitations** of that software, such as maximum number of cases (i.e., number of interviews it can hold) or maximum number of questions per case. Also be aware of what format the data is saved in, and what other software platforms the data will be compatible with. If entering directly into a database file such as Excel or SPSS, the standard method of entering survey data is one line for each respondent, one column for each question.

In general, you must **pay close attention when entering data into computer storage**. It is important to minimize or eliminate errors that occur at the data entry stage of survey research. Pace yourself, pay attention to what you are entering and where, and spot-check your own work. Some programs will check for errors as data are entered if you set a range of acceptable responses beforehand—for example, if gender responses are “1” (male) or “2” (female), and you enter a “7” by mistake, the computer may be able to prompt you for another response. If this is not available to you, you may want to look at the distribution of responses for a question after data entry is complete—if you see that 175 respondents answered “1” (male), 250 respondents answered “2” female, and 25 answered “7,” then you know to investigate and re-enter the data for those 25 surveys. A small number of errors is usually acceptable in survey research.

What Communities Have Learned

Pay close attention when entering data into computer storage. “Gathering data is hard, and then cleaning it all and trying to get things to be on a comparable basis . . . You set up an Excel spreadsheet and have drop-down menus that have to be “yes” or “no,” and they end up putting in ‘42’ and you wonder how it got there.”

--Bonnie Rosenberg, Project Manager for OST Initiative, City of New York. Conducted secondary research and utilization research of OST programs operating in New York City. This research project was designed to inventory existing OST programs and enrollment measures in order to direct resources to underserved and high-need areas.

6. Analyzing the Data

There are several steps involved in analyzing quantitative data: (1) coding any open-ended responses; (2) organizing the information for analysis; (3) frequency analysis; (4) crosstabulations, (5) determining significant differences; and (6) calculating error rates. In this section, we will describe each component briefly. For a more detailed discussion of quantitative data analysis, please refer to Workbook I in this manual.

Coding Open-Ended Data: There is no way to quantitatively analyze raw open-ended data—first, you must quantify it. The first step in this process is called *coding*. When coding, you reduce a wide variety of information into a more limited set of attributes with something in common. Workbook I will present detailed instructions for developing code categories and creating codebooks to be used in analysis.

Organizing Your Data for Analysis: Before beginning your analysis, you should organize the information for your study. Workbook I discusses strategies for organizing your data by general topic.

Frequency Analysis: A description of the number of times that the various attributes of a variable are observed in a sample is called a frequency distribution. Using gender as an example, you are reporting a frequency distribution when you report that 40% of respondents are men and 60% are women.

Crosstabulations: Crosstabulations, often called crosstabs or banners, are a way of presenting the data you've collected for assistance in analysis. Crosstabs are organized by rows and columns—you can choose the questions you would like to use as column variables, and then run all of the questions asked in your survey as row variables. Crosstabulations are effective at giving researchers an overview of the data.

Significant Differences: The only way to know if differences between categories (e.g., boys and girls) are important is to run a statistical test that will tell you if the difference is *statistically significant*. Statistical significance is the measurement of likelihood that this difference would occur in the “real world,” and is not simply a function of sampling error or chance. There are **three statistical tests** commonly used to test for statistical significance when analyzing crosstabs: the difference of proportion test, the Chi square, and t-test. These are discussed in detail in Workbook I.

Error Rates: An estimate from a survey is unlikely to equal the exact proportion of people who think or feel a certain way. This is because data for surveys are collected from a *sample* of the population being studied, not the entire population. Therefore, sample surveys involve a *margin of error*. Calculating error rates and factors affecting them are described in detail in Workbook I.