

# **SURVEY FUNDAMENTALS**

**A GUIDE TO DESIGNING AND IMPLEMENTING SURVEYS**



OFFICE OF  
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OFFICE OF QUALITY IMPROVEMENT

# SURVEY FUNDAMENTALS

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This guide describes in non-technical terms the underlying principles of good survey design and implementation. Clear, simple explanations lead the reader through methodology and logistics decisions, writing effective questions, and drawing conclusions from the results. The guide also provides tips for maximizing the response rate as well as an overview of human subject rules.

The material presented here is based on short courses presented by staff of the University of Wisconsin Survey Center in 2008 in honor of the UWSC's 25<sup>th</sup> anniversary. The course materials were developed by Nora Cate Schaeffer, Jennifer Dykema, Kelly Elver, and John Stevenson. Nancy Thayer-Hart compiled this guide based on those courses, supplemented with additional material.

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## SURVEY BASICS

A survey is often the best way to get information and feedback to use in planning and program improvement. This guide is written to help you achieve the results you need. The principles and practices described here have been recommended by the University of Wisconsin Survey Center.

Designing and implementing a survey is a systematic process of gathering information on a specific topic by asking questions of individuals and then generalizing the results to the groups represented by the respondents. The process involves five distinct steps. Figure 1 depicts the process of designing and implementing a survey:

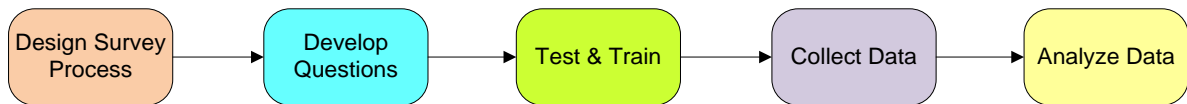


Figure 1. Survey Process

The type of survey you use for a particular purpose will be the result of decisions you make about:

1. Contacting potential respondents (in-person, telephone, mail, email)
2. Presenting the questions (written, interviewer)
3. Recording responses (paper, electronic)

Your choices will be influenced by your research goals and timeline, how sensitive or complex the study topic is, the characteristics, abilities and resources of potential respondents (e.g., their access to and experience with technology), and of course, your budget. The choices you make will affect the quality, cost and timeliness of your results.

## DESIGN THE SURVEY PROCESS

### *WHAT ARE THE GOALS?*

The first step in planning for your survey is to determine the goal and how you will use the information. The usual goal of a survey is to describe a population, for example, the group of people using your services. Another common goal that may require a very different study design is to make comparisons between groups, such as comparisons between those using your services and those who do not. Often surveys are used simply to get feedback from a specific group of people and/or learn about their wants and needs.

## ***WHAT IS THE TARGET POPULATION?***

Who are the people you're interested in hearing from? What criteria separate those who should be included in the survey from those who should not?

When the target population is small and easy to contact, it is often feasible to survey the entire population. However, when the target population is large or widely dispersed and the survey is part of a rigorous research project, a "sampling" process is typically used to select and survey only a subset of the total population of interest. If a sampling process would enhance the results of your survey, you will want to engage the services of a sampling statistician to guide you.

One reason to survey a sample rather than an entire population is that with a smaller sample size, you can include more follow-up contacts to encourage responses. As a result of these efforts, participation and data quality may be improved.

In order to reach your target population, you will need current and accurate contact information. Obtaining and verifying this information can be costly and time-consuming, especially if your target population is highly mobile and/or difficult to locate.

A service for mass emailing to campus audiences is available through Division of Information Technology (DoIT). See <http://www.doit.wisc.edu/lists/massemail/index.asp> for additional information. There is a fee for using this service.

## ***WHAT IS THE TIMING?***

Developing a timeline is a crucial step in planning your survey. When is the survey data needed? When would be the best time to contact potential participants? Do you want to survey during a break or at a time when respondents are engaged in another activity with your unit? If your survey is going to a campus population, you may want to avoid coinciding with one of the periodic campus-wide surveys.

What other workload issues may affect those involved in sending the survey and collecting and analyzing the results? How long will it take to design and obtain approval for the survey? How much time is needed for collecting responses? The answers to all these questions will help you develop a realistic timeline.

## ***WHAT MODE WILL BE USED?***

As noted above, there are a variety of options for how you conduct your survey. The combination of choices you make about contacting sample members, administering questions, and recording responses is called the "mode." The mode is influenced by the survey population, the study topic, and how you plan to use the information you gather.

## DEVELOP QUESTIONS

A survey question is a measuring device for things that are not directly observable, in the same way that a bathroom scale is a measuring instrument for weight. In order for your survey results to be useful and meaningful, the questions you ask must have two characteristics: reliability and validity. These terms are defined below.

Writing good survey questions requires keeping the goal of the survey firmly in mind and then formulating each question from the perspective of the respondent. It may be tempting to ask questions simply because it would be interesting to know the answers, but if they are not essential to the goal of the survey, such questions can actually detract from your survey results. Unnecessary questions distract respondents or cause confusion.

A useful strategy for judging whether you have the right questions is to create the tables for the final report before finalizing the survey. Thinking about how to array the survey results will highlight extraneous questions and perhaps point out areas where additional questions would strengthen your survey.

Respondents' abilities to provide accurate and useful information are enhanced when they can immediately understand what is being asked and the purpose of the question. Respondents can then more easily recall the situation, event, or information they are being asked about and decide how frank to be. In the "Tips for Writing Good Questions" section below are general rules for framing questions in a way that shortens the path between question and answer.

The placement of a question within the survey also has an impact on the results. For example, respondents may have difficulty recalling specific dates or times. If this information is absolutely necessary, reserve the question for the end of the survey, when other questions have gotten the respondent recalling and processing.

### RELIABILITY

Just as you want to be able to rely on your bathroom scale to always give the same reading if your weight is unchanged, you want your survey questions to be reliable. *Reliability is the extent to which repeatedly measuring the same property produces the same result.* Ideally, each survey question will mean the same thing to everyone, including those administering the survey. This takes careful design and refinement.

### VALIDITY

*Validity is the extent to which a survey question measures the property it is supposed to measure.* For example, a yardstick would not produce a valid

measure of the weight of an object. Your bathroom scale is more likely to produce valid readings, but if it's old and abused, the readings may be systematically inaccurate.

### *TIPS FOR WRITING GOOD QUESTIONS*

Whenever possible, build on what's been done before. Somewhere, sometime, someone has tried to get the same or similar information. Access previous surveys conducted by your unit or elsewhere on campus or investigate online repositories of questions so you don't have to start from scratch.

An effective survey question provides the respondent with a context for the question by announcing the topic and defining the timeframe for events or behaviors that are to be included in the response. For example, "This question is about commuting to work. When answering, please consider only events that occurred during the fall semester." This pre-question information or context is known as the "preamble."

The preamble should also explain what the respondent is being asked to do (e.g., check one, list all) and define any concepts or terms that the respondent needs to understand in order to answer the question. The preamble is an important means of ensuring the reliability of the question.

The question can focus on an event or behavior that the respondent might have observed or participated in, or it can inquire about their attitude, evaluation, or judgment. The topic will determine the appropriate "response dimension."

Common response dimensions for questions about events and behaviors include:

- Opportunity to experience or know something
- Occurrence of an event or behavior within a defined time period
- Frequency (counts or rates)
- Regularity (time interval)
- Duration
- Date or timing

Common response dimensions for questions about attitudes and judgment include:

- Degree of attractiveness (like/dislike, favor/oppose)
- Satisfaction
- Intensity (a little, somewhat, or very much)
- Certainty
- Importance

Asking good questions is not as easy as it seems, and the unfortunate result of ineffective questions is bad data. The resource list at the back of this guide

includes several basic texts that can be very helpful in writing good questions (see, e.g., Schaeffer and Presser (2002), Fowler and Cosenza (2008), and Aday and Cornelius (2006)). Some general rules for writing effective survey questions are summarized below.

### **Question Wording**

Avoid using complex words, technical terms, jargon, and phrases that are difficult to understand. Instead, use language that is commonly used by the respondents. For example:

Use . . .	Instead of ...
▪ Work	▪ Employment
▪ Tired	▪ Exhausted
▪ About	▪ Regarding
▪ People who live here	▪ Occupants of this household
▪ Your answers	▪ Your responses to this questionnaire
▪ Job concerns	▪ Work-related employment issues
▪ Providing health care	▪ Health care provision

Other wording practices to avoid:

- Shorthand (contractions, abbreviations, symbols, slashes, parentheses, brackets)
- Framing questions in the negative - *how frequently do you not attend classes?*
- Using double negatives - *do you agree or disagree that students should never not go to class?*
- Passive voice – *how often were grade reductions made by your teachers for absences?*
- Words or phrases with a strong point of view

### **Question Structure**

Just like the words and phrases used in your questions, the structure of the question should be simple and easy for respondents to comprehend. Questions should have only a single subject and verb, and should not combine two questions into one.

Questions can become “double-barreled” when the word “or” is used and also when two different types of response options are tucked into a single question. For example, *In what year was your husband born? Check here if not currently married*, asks for both the husband’s date of birth AND for whether the respondent is married.



Refrain from asking questions with multiple response dimensions (e.g., regularity AND frequency, occurrence AND frequency). Separate these into two separate questions.

Questions that start with a statement and ask the respondent to agree or disagree with the statement (or answer true or false) may give the impression that you are expecting a certain response. Instead, rephrase the question to include the response dimension: *How important is . . .? How sufficient is . . .? How effective will . . .?* Then supply appropriate response categories, such as *not at all, a little, somewhat, quite, extremely*.

Maintaining a parallel structure for all questions immensely improves respondents' ability to comprehend and effectively respond to the survey. Use the same words or phrases to refer to the same concepts. For example, don't mix "how old were you," "at what age," and "when." Pick one phrase and stick with it, and always position repeated words and clauses in the same place and in the same order.

Where a definition would help to clarify what the question is about or to describe what should be included in the response, provide the definition in the preamble, before asking the question.

### ***Question Type – Open or Closed?***

**Closed questions** provide a list of acceptable responses. Checklists, multiple choice questions, true/false questions, and attitude scales fit this category. Respondents may find it easier to answer the question when response alternatives are provided, and it is easier and less time-consuming to interpret and analyze the responses to closed questions.

**Open-ended questions** such as "*What is the most important problem facing our department today?*" allow respondents to answer in their own words. There are several advantages to giving respondents the opportunity to use their own words to express themselves:

- Respondents may give increased amounts of reflection to their answers
- Unanticipated answers may emerge
- The respondent's views may be described more accurately

However, some answers to open questions may be difficult to interpret and answers may be spread over many categories, making it hard to analyze them.

### ***Reference Period***

*The reference period is the time frame the respondent is being asked to consider when answering a question.* The reference period needs to be made

explicit, rather than leaving each respondent to make an assumption about how far back they should try to remember.

It's best to use specific dates rather than referring to "last week" or "last month," and the length of the reference period needs to be appropriate to the behavior or event the respondent is being asked to recall. It might be difficult for many people to recall how many times they've eaten in a restaurant during the past six months, but most of us could be pretty accurate about how many times we ate in a restaurant during a recent two-week period described with specific dates.

The place to announce the reference period is in the preamble at the beginning of a section of related questions and whenever the reference period changes. It is also helpful to repeat the reference period in abbreviated form as you ask each question in the series.

### ***RESPONSE FORMAT***

Questions must match the desired format of the answer. For example, if you are providing separate blanks for the city and the state of residence, ask *In which city and state do you live?* rather than *Where do you live?*

If you provide response categories for a question, make sure they are exhaustive – i.e., all respondents can identify one that fits (*less than 20 years, 20-60 years, over 60 years*). Categories should also be mutually exclusive so that respondents can easily select only one response (*0-9 and 10-19* rather than *0-10 and 10-20*). Ensuring that response categories are both exhaustive and mutually exclusive may require re-evaluating the intent of the question or separating it into two or more questions, or both.

Response categories labeled with words (*dissatisfied, satisfied*) give more reliable data than categories labeled with numbers (*1, 5*). The researcher can always assign numeric values later to make it easier to analyze responses. Categories should be fully labeled with exactly what each point on the scale means (*very dissatisfied, somewhat dissatisfied, neither satisfied nor dissatisfied, somewhat satisfied, very satisfied*).

For questions that only ask about one dimension (e.g., *how satisfied are you?*), five fully labeled categories are usually sufficient. For bipolar questions (e.g., *how satisfied or dissatisfied are you?*), use seven fully labeled categories. The midpoint should allow for mixed or in between feelings, whichever is most appropriate.

When measuring the frequency of an event or behavior, ask for the actual number of times the event or behavior occurred during the reference period, rather than providing categories like often, seldom, never.

To measure occurrence, ask for number of times per day/week/month, rather than asking respondents to select a category (several times a week, once a week, once a month). However, if the event in question is difficult to count or estimate, response categories (*zero times, 1-3 times, 4 or more times*) may help respondents provide an answer.

## ***DESIGN OF SELF-ADMINISTERED QUESTIONNAIRES***

*A self-administered questionnaire is a survey that collects data without the use of a telephone or in-person interviewer.* It can be either a paper or web-based instrument. In both cases, the design of the questionnaire is crucial to reducing non-responses and measurement error.

With self-administered questionnaires, it is especially valuable to provide a context for the survey as a whole – how the data will be used, whether responses are anonymous, etc. The earlier and more effectively this is done, the less likely people will be to dismiss the survey before they even start responding. The introductory email or letter or the front cover of a paper survey are appropriate places to provide the context.

Important design considerations include:

- Physical format of a paper instrument (how pages are oriented, stapled, folded, etc.) is simple for the respondent to work with and for data entry staff to process
- Launching and moving through a web-based survey is intuitive and works with multiple browsers
- Order of questions is polite and logical to the respondent
  - Begin with questions that reflect the announced subject of the study, catch the respondent's attention, and are easy to answer
  - Ask people to recall things in the order in which they happened
  - Ask about topic details before asking for an overall assessment
  - Group items that are similar in topic, then group items within the topic that have similar response options
  - Place personal and demographic questions at the end of the survey
- Visual layout is clean, simple, and consistent
  - Distinguish question text, answer choices and instructions and be consistent in how you do this
  - Limit the number of variations in type or font, the use of white type on black background, and the use of all capital letters
  - Use indentation and white space to make it easy to navigate through sections of the survey and to identify the next question
  - On a paper survey, provide lines for answering open-ended questions (the more lines, the more respondents will write)

- On an electronic survey, the response space should be expandable or accommodate an ample number of words
- Desired first and last impressions are created by the front and back covers on a paper survey and by the email and web page headers on an electronic survey
- Include the organization’s name and logo (or an engaging but neutral graphic) and the title of the survey on the cover or header
- Provide instructions for returning the completed questionnaire and a number to call with questions on the back cover (or at the end of an electronic survey), along with a note of thanks for responding.

### ***CHECKLIST FOR EFFECTIVE QUESTIONNAIRES***

The following table summarizes the key “dos and don’ts” for writing and formatting your survey questionnaire.

<b>Do:</b>	<b>Do Not:</b>
<ul style="list-style-type: none"> <li>☑ Give clear instructions</li> <li>☑ Keep question structure simple</li> <li>☑ Ask one question at a time</li> <li>☑ Maintain a parallel structure for all questions</li> <li>☑ Define terms before asking the question</li> <li>☑ Be explicit about the period of time being referenced by the question</li> <li>☑ Provide a list of acceptable responses to closed questions</li> <li>☑ Ensure that response categories are both exhaustive and mutually exclusive</li> <li>☑ Label response categories with words rather than numbers</li> <li>☑ Ask for number of occurrences, rather than providing response categories such as often, seldom, never</li> <li>☑ Save personal and demographic questions for the end of the survey</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Use jargon or complex phrases</li> <li>⊗ Frame questions in the negative</li> <li>⊗ Use abbreviations, contractions or symbols</li> <li>⊗ Mix different words for the same concept</li> <li>⊗ Use “loaded” words or phrases</li> <li>⊗ Combine multiple response dimensions in the same question</li> <li>⊗ Give the impression that you are expecting a certain response</li> <li>⊗ Bounce around between topics or time periods</li> <li>⊗ Insert unnecessary graphics or mix many font styles and sizes</li> <li>⊗ Forget to provide instructions for returning the completed survey!</li> </ul>

### **TEST AND TRAIN**

Writing survey questions is an iterative process. Review, test, and revise the questions and introductory scripts – maybe more than once!

Even if you've used the same questions before or copied them from a government repository, you'll want others to check your survey for spelling and grammatical errors, readability and flow, and consistency with the current survey's goals. If the topic is sensitive or your results will be used to make high stakes decisions, consulting an expert (e.g., the UW Survey Center) to review your survey is a wise investment. You may also need to get final approval from others in your unit or beyond.

Once your survey has passed muster internally, it's time to "field test" it with a sample of potential respondents to verify that your process is smooth and completely understandable to your target population. Do people understand the terms? Or are adjustments needed? Do people complete the survey as intended? Or do they drop out before completing it? Are certain questions regularly skipped? If the survey is electronic, does it launch properly and work as expected with different browsers? The purpose of the field test is to get estimates of the survey's reliability and validity and to identify any final changes that might be needed to ensure success.

Those involved in contacting potential respondents, conducting interviews, and analyzing survey responses need to be briefed on the purpose of the study and provided with training tailored to their role in the project. The goal is to have everyone following a consistent process so that as little variation as possible is introduced into the process.

If interviewers are administering the survey in person or by phone, develop a script for them to follow so that the survey is presented in exactly the same way to every respondent. Interviewers will also need to be trained to behave in neutral ways to control their influence on the answer, and they need actual practice reading the questions and script. For mail surveys, the mail and data entry staff needs instruction in how the study will be mailed out and how the data will be coded and entered.

A common question is whether those who participate in the field test can later be respondents. The answer depends on how the pretest respondents were drawn and whether the instrument has changed, and how much time has passed between the field test and the main study. A good way to identify pretest respondents is to draw a miniature sample like that to be used in the main study. This approach allows field procedures to be tested as well as the instrument. When this method is used, pretest respondents can sometimes be combined with respondents from the main study.

## COLLECT DATA

### *RESPONSE RATE*

The whole point of conducting a survey is to obtain useful, reliable, and valid data in a format that makes it possible to analyze and draw conclusions about the total target population. Although there is no agreed-upon minimum response rate (Fowler, 2002), the more responses you receive, the more likely it is that you will be able to draw statistically significant conclusions about the target population.

Every component of your survey process – everything you do or don't do – will affect the response rate, so seemingly simple decisions like whether to use a mailed survey or a web survey should not be taken lightly. The UW Survey Center normally receives a 60-70% rate of response to mailed surveys. For web surveys, a 30-40% response rate is common, even with populations that are young and have easy access to the web.

From your very first contact with potential respondents to obtain cooperation, you have the opportunity to affect the response rate. How can you interest potential respondents so that they are more likely to respond? People like to know the purpose of the survey and what you will do with the results. Studies show it helps if the initial communication is personalized and presents an altruistic purpose for participation. Clear identification of the source and authority of the organization conducting the survey and assurances about confidentiality are also extremely important (Odom, 1979).

Incentives are often used to maximize the response rate. Mailed surveys or advance letters are often accompanied by a crisp bill. When it is provided before the survey is taken, even a small denomination encourages the respondent to complete and return the survey. Prize drawings for a gift certificate are popular incentives for completing a web survey, however the evidence about their potential effectiveness in gaining participation is mixed at best.

Calculating response rates can be quite complicated. The American Association for Public Opinion Research (AAPOR) has developed a set of "Standard Definitions" that are used by most social research organizations. See [http://www.aapor.org/Standard\\_Definitions/1818.htm](http://www.aapor.org/Standard_Definitions/1818.htm) .

### *FOLLOW-UP PROCEDURES*

Advising potential respondents of a deadline for completing the survey helps make it a priority. CustomInsight (2010) suggests giving a window of 7 to 10 days, with a follow-up reminder sent a few days before the end date.

Depending upon how the survey is being administered, popular means of prompting potential respondents to complete the survey include email, telephone, or a mailed postcard. A reminder that includes a duplicate copy of the survey may yield the best response.

Investigators often want to survey the same population on a regular basis. A simple but timely thank you note is helpful in retaining people's interest in participating in your future surveys. If you can share some of the survey findings, it will engage a feeling of responsibility for the results, which in turn will increase their commitment to future surveys. Whatever you have promised respondents in the way of incentives and/or post-survey follow-up, be sure you deliver!

### **WEB SURVEY CHALLENGES**

Web surveys are an increasingly popular mechanism for collecting data, but come with their own set of issues and aren't appropriate for every use. Web surveys eliminate the need for data entry, but not the need to verify accuracy and account for missing data.

An obvious drawback is that the samples in web surveys are skewed to Internet users, and the target population may or may not be skilled in or have access to the necessary technology. Reliability is at risk because the survey may appear differently to different respondents, depending upon browser and computer platform. People also differ in how and when they read email, and spam filters can wreak havoc with your delivery schedule.

Unless the survey has only a couple questions and the number of potential respondents is very limited, simply putting the survey in the body of an email will not suffice (Couper, 2008). Commercial web survey tools are available (Zoomerang and SurveyMonkey are two examples) as well as a UW-Madison tool called Qualtrics (see <http://survey.wisc.edu/>). The UW Survey Center also conducts Internet web surveys. These tools provide assurance about anonymity, templates for laying out the survey, and assistance with compiling responses that go far beyond the capabilities of an email.

## **ANALYZE DATA**

### **CODING AND ANALYZING DATA**

Thoughtful decisions made during the planning phase about what data are needed and the format in which it will be collected will pay dividends when it comes time to analyze the data. A consistent process for organizing and analyzing survey data should be established and clearly documented well ahead of receiving the first responses, with everyone involved receiving ample training.

- How will incomplete surveys and missing data be handled?

- What checks will be conducted to find errors in coding or data entry?
- Will some questions be weighted more heavily than others?

Scaled responses (e.g., dissatisfied, somewhat dissatisfied, neutral, somewhat satisfied, satisfied) are usually converted to numerical values (1, 2, 3, 4, 5) for easier analysis. Use of a template or mask can help coders convert the data more quickly and accurately.

Careful thought needs to be given to coding responses to open-ended items. The process usually involves examining some preliminary data to identify potential categories, and then testing to ascertain how consistently the categories are assigned by various coders.

To analyze responses to open-ended questions, you can copy the comments onto individual cards and then group similar comments together. This will give you a sense of the most frequent ideas. Alternatively, there are software packages that help in analyzing responses to open-ended questions. ThemeSeekr (<http://themeseekr.com/>) was developed to aid in processing the thousands of comments received during the UW-Madison 2009 reaccreditation self-study, and uses “word clouds” as a visual analysis tool to show the relative frequency of the themes into which responses have been categorized.

## ***DRAWING CONCLUSIONS***

Visual displays can be helpful in understanding the data. For responses to multiple choice questions, you might:

- Create a frequency histogram of the responses for each question to demonstrate the variation in the responses
- Use a bar chart to display the percent of respondents selecting particular responses

## ***ADDITIONAL CONSIDERATIONS***

### ***HUMAN SUBJECTS PROTECTION***

If the results of your survey will be written for publication, you may need to receive advance approval from an Institutional Review Board (IRB). Contact the Graduate School for assistance with identifying the appropriate board (see <http://www.grad.wisc.edu/research/hrpp/irblinks.html>).

The UW Survey Center notes that survey work frequently raises issues of interest to the IRB, including:

- What is the consent process and need it be written?
- How will confidentiality be protected?
- How will people be sampled or recruited?



- Will incentives be offered?
- Will HIPAA (Health Insurance Portability and Accountability Act) privacy rules be applicable?

Since IRB approval cannot be granted after the fact, it is extremely important to follow the appropriate protocol prior to conducting your survey, if there is even a remote chance that you will someday want to publish the results of your research.

### ***A WORD ABOUT CLIMATE SURVEYS***

Frequently initiated by a school or college's Equity and Diversity Committee, climate surveys can be a useful way to gather data on job satisfaction, the quality of interactions within the workplace, and potential issues requiring intervention.

It is always a good idea to find out what other climate assessment may have been conducted with your target population. For example, on the UW-Madison campus, the Women in Science and Engineering Leadership Institute (WISELI) has been studying the quality of work life for faculty since 2003, and makes the survey data available at the school/college level.

WISELI has also developed extensive materials for enhancing department climate (see <http://wiseli.engr.wisc.edu/climate.php>), including a template climate survey for individual departments.

*So You Want to Run a Climate Survey?!* (Frehill, 2006) offers numerous tips and design considerations specific to climate surveys.

### **GETTING HELP WITH YOUR SURVEY**

The University of Wisconsin Survey Center (see [www.uwsc.wisc.edu](http://www.uwsc.wisc.edu)) offers a complete range of survey research capabilities and serves a wide variety of clients including faculty, staff, and administration at the University of Wisconsin; faculty and staff at other universities; federal, state, and local governmental agencies; and not-for-profit organizations.

The Survey Center can consult with you at one or more points in the survey process or Survey Center staff can take the lead role in designing and implementing your survey. Specific tasks on which it can be helpful to get assistance include:

- Developing protocols that yield high response rates
- Reviewing the instrument and refining questions
- Sampling
- Developing cost proposals
- Foreign language and international work

## TERMINOLOGY

**Instrument:** The survey questionnaire or booklet.

**Institutional Review Board (IRB):** Campus governance bodies responsible for ensuring the protection of human subjects participating in research studies, including surveys.

**Mode:** The combination of how sample members/participants are contacted, questions are administered, and responses are recorded.

**Preamble:** An introductory statement that provides definitions and instructions for completing a section or question in the survey.

**Reference period:** The time frame the respondent is being asked to consider when answering a question (e.g., August 1 through August 15, 2009).

**Reliability:** The extent to which repeatedly measuring the same property produces the same result.

**Respondent:** An individual providing answers to survey questions.

**Response dimension:** The scale or descriptor that a survey question asks the respondent to use to describe their observations, actions, attitude, evaluation or judgment about an event or behavior.

**Response rate:** The number of completed surveys divided by the number of eligible potential respondents contacted.

**Sample:** A list of people drawn from the group from which information is needed.

**Self-administered questionnaire:** A paper or web-based survey that collects data without the use of a telephone or in-person interviewer.

**Target population:** The group of people whose activities, beliefs or attitudes are being studied.

**Validity:** The extent to which a survey question accurately measures the property it is supposed to measure.

## REFERENCES AND ADDITIONAL RESOURCES

### WORKS CITED

Couper, Mick P. 2008. *Designing Effective Web Surveys*. Cambridge: Cambridge University Press.

"Customer Satisfaction Surveys: Maximizing Survey Responses." *CustomInsight*. Web. <custominsight.com>; 24 Nov. 2010.

Fowler FJ. *Survey Research Methods*. 3rd ed. Thousand Oaks, CA: Sage Publications; 2002.

Frehill, Lisa; Elena Batista; Sheila Edwards-Lange; Cecily Jeser-Cannavale; Jan Malley; Jennifer Sheridan; Kim Sullivan; and Helena Sviglin. "So You Want to Run a Climate Survey?!" (pp. 29-35) *Using Program Evaluation to Ensure the Success of Your ADVANCE Program*. May 2006.

[http://wiseli.engr.wisc.edu/docs/Report\\_Toolkit2\\_2006.pdf](http://wiseli.engr.wisc.edu/docs/Report_Toolkit2_2006.pdf)

Odom, John G. "Validation of Techniques Utilized to Maximize Survey Response Rates." Tech. ERIC document reproduction service no. ED169966. *Education Resource Information Center*. Web. <<http://eric.ed.gov>>. (09 April 1979).

### ADDITIONAL RESOURCES

Department Climate Surveys: <http://wiseli.engr.wisc.edu/climate.php>

IRB Contacts: University of Wisconsin-Madison Graduate School, <http://grad.wisc.edu/research/hrpp/irblinks.html>

Online Survey Tools:

- UW-Madison Survey Hosting Service, <http://survey.wisc.edu/>
- ThemeSeekr, <http://themeseekr.com>

Question Comprehensibility Testing:

<http://mnemosyne.csl.psync.memphis.edu/QUAID/quaidindex.html>

Reference Materials List: Compiled by Nora Cate Schaeffer, UW Survey Center, <http://www.ssc.wisc.edu/cde/faculty/schaeffe.htm>

Response Rates: *Standard Definitions*, American Association for Public Opinion Research, [http://www.aapor.org/Standard\\_Definitions/1818.htm](http://www.aapor.org/Standard_Definitions/1818.htm)

## Survey Methodology:

- Dillman, Don A., Jolene D. Smyth, and Leah M. Christian. 2009. *Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method, Third Edition*. New York: John Wiley & Sons.
- Groves, Robert M., Floyd J. Fowler, Mick P. Couper, James M. Lepkowski, Eleanor Singer, and Roger Tourangeau. 2004. *Survey Methodology*. Hoboken, New Jersey: Wiley.
- Journal of Survey Research Methodology (surveymethods.org), <http://w4.ub.uni-konstanz.de/srm/>

Training Interviewers: <http://www.cdc.gov/brfss/training/interviewer/index.htm>

## Usability Guidelines for Web Design:

[http://www.usability.gov/guidelines/guidelines\\_book.pdf](http://www.usability.gov/guidelines/guidelines_book.pdf)

## Writing Good Questions

- Aday, Lu A. and Llewellyn J. Cornelius. 2006. *Designing and Conducting Health Surveys: A Comprehensive Guide, 3rd Edition*. New York: Wiley.
- Fowler Jr., Floyd J. and Carol Cosenza. 2008. "Writing Effective Questions." Pp. 136-60 in *International Handbook of Survey Methodology*, edited by Edith D. de Leeuw, Joop J. Hox, and Don A. Dillman. Lawrence Erlbaum.
- Schaeffer, Nora Cate and Stanley Presser. 2003. "The Science of Asking Questions." *Annual Review of Sociology*, Vol. 29: 65-88  
<http://www.annualreviews.org/eprint/rU4UOoizjrXROhijkRIS/full/10.1146/annurev.soc.29.110702.110112>