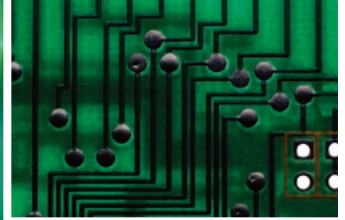


Best Practices in Public Opinion Research



Improving Respondent Cooperation for Telephone Surveys



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Improving Respondent Cooperation
for Telephone Surveys

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Foreword

Public Works and Government Services Canada gratefully acknowledges the work of Steve Kiar and Alethea Woods of Phoenix Strategic Perspectives, Inc., who reviewed a wide range of practices throughout the discipline and industry of telephone survey research, analyzed the best practices described herein and wrote the report.

Executive Summary

This best practices document, *Improving Respondent Cooperation for Telephone Surveys*, is intended to provide public servants undertaking public opinion research on behalf of the Government of Canada with a practical guide to achieving and maintaining high response rates in telephone surveys. The Public Opinion Research Directorate (POR) of Public Works and Government Services Canada (PWGSC) produced this report to help government departments and agencies conduct or obtain high-quality public opinion research, in order to ensure that they consider the needs and concerns of Canadians when designing and implementing policies, programs and services. This report was conceived primarily in response to two concerns: concerns expressed by suppliers and clients throughout the research industry about the ongoing need for high-quality information; and concerns about declining participation in telephone surveys worldwide, which may ultimately compromise survey quality and create samples that are not representative of the populations that they are intended to represent.

While the theme of this report is increasing response rates in telephone surveys, the report is not intended to be solely a guide to increasing response rates to meet an arbitrary objective. The focus is rather on strategies to help ensure that telephone surveys conducted for the Government of Canada *achieve the highest possible response rates within the parameters of each study*. These best practices incorporate guidelines and procedures to be used in the different phases of survey research.

This report is based on a combination of reviews of academic studies and interviews with, and written feedback from, knowledgeable persons in government, the market research industry and academia. It presents *50 best practices* that can help to improve response rates in telephone surveys. Based on their primary and secondary research, the authors feel the following best practices are the most effective of the 50 presented.

- **Select the most appropriate survey method:** For public opinion surveys conducted for the Government of Canada on public policy issues where a national sample of the adult population is required, randomly selected telephone samples are—at the time this report is being written—normally more representative of a larger proportion of the population than samples available on most Internet panels; however, many specialized populations are now more effectively sampled via the Internet.
- **Consider alternative methods:** Alternative data collection methods may be more appropriate than traditional ones for hard-to-reach respondents. Mixed-mode surveys, which are based on more than one data collection method, have been found to yield higher response rates.
- **Lengthen the survey period:** The length of the data collection period can have a direct impact on response rates. Studies quoted in this report have found that longer interviewing periods can double or even triple response rates. The length of time allotted for data collection should reflect incidence level, target audience and research objectives.

- **Keep the interview short:** Longer interviews, especially those over 20 minutes, are widely thought to have a negative impact on response rates. In practical terms, surveys of 10 minutes or less are considered not overly burdensome. Controlling survey length necessarily involves considering the relative priority of questionnaires.
- **Include a good introduction at the beginning of the interview:** Studies have found that the majority of refusals occur during the first minute of the call. Therefore, effective introductions may increase the likelihood that a potential respondent will become a participating respondent. The report recommends that interviewers use personalization, identify the sponsor, describe the survey objectives, and confirm that confidentiality and privacy will be respected.
- **Reveal the sponsor's identity:** Telling potential respondents who is sponsoring the survey may increase survey response rates. Research suggests that government-sponsored or government-conducted surveys achieve higher response rates than surveys sponsored by most other organizations.
- **Consider incentives:** There is a general consensus among researchers that monetary and non-monetary incentives are an effective way to increase response rates. For special-audience research, the distribution of a research summary is a valuable and relatively common type of non-monetary incentive. Where possible, the interviewer should offer the incentive when first contacting the respondent.
- **Vary the call scheduling:** Varying the timing of calls can reduce the number of call attempts required to reach the respondent and increase the likelihood of reaching a household or business. Maximizing response rates requires calling at times that are most suitable for the survey sample while still ensuring that interviewing takes place across different time periods—such as different hours of the day or days of the week—in order to ensure that the sample is representative of the targeted population.
- **Increase the number of callbacks:** An adequate number of callbacks can also improve the response rate. Increasing the number of callbacks up to a certain point will result in higher response. This approach should be combined with varying the call scheduling (see above).
- **Ensure that interviewers are well trained and well briefed:** The use of well-trained and professional interviewers will improve response rates. Project-specific interviewer briefings should be provided for all telephone surveys.
- **Consider refusal conversions:** The survey organization should attempt to convert respondents who have initially refused to participate. Refusal conversions are normally done in subsequent telephone calls by more senior, experienced interviewers.

The above best practices are those that the authors consider to have the greatest impact on survey response. Many other practices discussed in this report are thought to have a medium or low impact.

Please also see: Checklist of Best Practices and Assessment of Relative Impact of Best Practices on Response Rates, which follows.

This set of best practices was compiled to provide users of public opinion research in the Government of Canada with the information necessary to understand issues related to survey response and the factors that affect response rates. For more information on the 50 best practices, we invite the reader to examine the full set of best practices outlined in the following pages.

Checklist of Best Practices and Assessment of Relative Impact of Best Practices on Response Rates

This set of best practices is designed to help maximize response rates for Government of Canada telephone surveys. Use this checklist to guide decision-making at each stage of the research project. Remember, not all of these best practices will be appropriate or feasible for all POR studies. *However, adopting as many best practices as possible when doing a study can be expected to increase response rates.*

Just as not all of the best practices will apply to all telephone surveys, each best practice is *not* equal in terms of its impact on response rates. Some of the best practices will have a greater impact on maximizing response rates than others. For example, response rates are best addressed during the design and data collection phases of a study; efforts undertaken during analysis and reporting will do nothing *directly* to improve response rates. In addition, none of the best practices on its own can be expected to have a significant impact on response rates. Rather, adopting as many best practices as possible during a study can be expected to increase response rates. Conversely, not incorporating the best practices appropriate to a study *can* decrease response rates.

Given the differential impact of the best practices, and the unique constraints of budget and time for each POR telephone survey, it might be necessary to make trade-offs when designing research. The following guide to the approximate relative impact of the best practices on response rates can help organizations make those decisions. Estimates of the impact of these 50 best practices are based on qualitative assessments by the authors of this study, Phoenix Strategic Perspectives, Inc. In turn, the authors based these qualitative assessments on interviews with experts and practitioners in the field and on an extensive literature review.

| Research Design | Assessment of Impact |
|---|----------------------|
| Choose an appropriate data collection method (BP 1.0) | |
| <input type="checkbox"/> Select the most appropriate survey method. (BP 1.0.1) | High |
| <input type="checkbox"/> Consider alternative methods to contact hard-to-reach respondents. (BP 1.0.2) | High |
| <input type="checkbox"/> Consider allowing proxy respondents. (BP 1.0.3) | Low |
| <input type="checkbox"/> Collect the data at the most appropriate time of year. (BP 1.0.4) | Medium |
| <input type="checkbox"/> Allow adequate time to collect the data. (BP 1.0.5) | High |
| Ensure adequate population coverage (BP 1.1) | |
| <input type="checkbox"/> Define the research population. (BP 1.1.1) | Medium |
| <input type="checkbox"/> Select an adequate sample size. (BP 1.1.2) | Low |
| <input type="checkbox"/> Reduce coverage error. (BP 1.1.3) | Low |
| Minimize respondent burden (BP 1.2) | |
| <input type="checkbox"/> Keep the interview as short as possible. (BP 1.2.1) | High |
| <input type="checkbox"/> Design a well-structured questionnaire. (BP 1.2.2) | Medium |
| <input type="checkbox"/> Review the translated questionnaire. (BP 1.2.3) | Medium |
| <input type="checkbox"/> Pre-test the questionnaire. (BP 1.2.4) | Medium |
| Incorporate methods to encourage participation (BP 1.3) | |
| <input type="checkbox"/> Notify potential respondents in advance of the fieldwork, where possible. (BP 1.3.1) | Medium |
| <input type="checkbox"/> Use effective survey introductions. (BP 1.3.2) | High |
| <input type="checkbox"/> Offer assurances of confidentiality. (BP 1.3.3) | Low |
| <input type="checkbox"/> Consider using incentives, where possible. (BP 1.3.4) | High |
| <input type="checkbox"/> Reveal survey sponsorship. (BP 1.3.5) | High |
| <input type="checkbox"/> Offer a validation source. (BP 1.3.6) | Medium |
| <input type="checkbox"/> Inform relevant government call centres or offices about the survey. (BP 1.3.7) | Low |
| Data Collection | |
| Ensure effective sample management (BP 2.0) | |
| <input type="checkbox"/> Hire a data collection firm that submits to recognized field audits. (BP 2.0.1) | Medium |
| <input type="checkbox"/> Ration sample resources. (BP 2.0.2) | Medium |
| <input type="checkbox"/> Accurately track the disposition of calls. (BP 2.0.3) | Low |
| Make efforts to maximize contact rates (BP 2.1) | |
| <input type="checkbox"/> Vary the call scheduling. (BP 2.1.1) | High |
| <input type="checkbox"/> Offer flexible callbacks and appointments. (BP 2.1.2) | Medium |
| <input type="checkbox"/> Ensure an adequate number of callbacks. (BP 2.1.3) | High |

| | |
|--|--------|
| continued | |
| <input type="checkbox"/> Schedule extra callbacks to households with an initial language barrier. (BP 2.1.4) | Low |
| <input type="checkbox"/> Leave messages, for some studies. (BP 2.1.5) | Medium |
| <input type="checkbox"/> Provide a toll-free number for studies with hard-to-reach respondents. (BP 2.1.6) | Medium |
| Take steps to minimize refusals and terminations (BP 2.2) | |
| <input type="checkbox"/> Ensure use of well-trained, effective interviewers. (BP 2.2.1) | High |
| <input type="checkbox"/> Request monitoring of data collection at all times. (BP 2.2.2) | Medium |
| <input type="checkbox"/> Monitor reasons for non-response during data collection. (BP 2.2.3) | Low |
| <input type="checkbox"/> Monitor non-response levels among different segments of the target population. (BP 2.2.4) | Low |
| <input type="checkbox"/> Attempt refusal conversions. (BP 2.2.5) | High |
| Analysis | |
| Address survey non-response (BP 3.0) | |
| <input type="checkbox"/> Compare response rates across sub-groups. (BP 3.0.1) | Low |
| <input type="checkbox"/> Weight survey data, where possible. (BP 3.0.2) | Low |
| <input type="checkbox"/> Compare respondents and non-respondents. (BP 3.0.3) | Low |
| <input type="checkbox"/> Conduct non-respondent follow-ups. (BP 3.0.4) | Low |
| <input type="checkbox"/> Compare “early” to “later” respondents. (BP 3.0.5) | Low |
| Reporting | |
| Document the response rate (BP 4.0) | |
| <input type="checkbox"/> Ensure the research supplier provides the record of calls. (BP 4.0.1) | Low |
| <input type="checkbox"/> Calculate the response rate using an approved method. (BP 4.0.2) | Low |
| <input type="checkbox"/> Ensure the response rate is recorded in the final report. (BP 4.0.3) | Low |

Introduction

In recent years, the Public Opinion Research Directorate (PORD) of Public Works and Government Services Canada (PWGSC) and other departments of the Government of Canada have raised concerns about survey quality issues. In particular, declining response rates in telephone surveys have been a key concern and discussion item at meetings of the Government of Canada's Community of Practice. Industry associations—especially the Marketing Research and Intelligence Association (MRIA)—and the Office of the Auditor General of Canada (November 2005) have expressed similar concerns. This focus on response rates is not unfounded, given the general consensus among survey research practitioners that response rates have been declining over the past few decades (de Leeuw and de Heer, 2001; Groves and Couper, 1998). People are becoming harder to reach and less willing to participate in survey research.

This decline has cast doubt on the validity of data resulting from surveys with lower response rates and has increased the cost of conducting research to reach target response rates. Improving response rates requires a multi-dimensional response that addresses the issue of non-response at different stages of the research process. This set of best practices has been developed to help Government of Canada departments and agencies design and conduct public opinion research (POR) that strives to achieve the highest response rates possible.¹

Purpose and Scope

This set of best practices was developed to help maximize response rates in telephone surveys. The focus is on strategies to help ensure that each Government of Canada telephone survey achieves the best response rate possible within the parameters of the study. These best practices incorporate guidelines and procedures that should be considered throughout the research study, from the design phase of the project through the reporting phase. The document is intended for use by departments and agencies for their own review and for discussions with research suppliers. Since the research process in the federal government context is typically a collaboration between PORD, the departmental POR coordinator, the end client and the research supplier, readers will find that some of the areas covered by the best practices may apply only indirectly to *their* role in a particular study. Research suppliers consider some of these best practices to be standard quality control practices. Others will involve consideration and reflection on the part of the department or agency commissioning the survey.

The Process of Developing the Best Practices

Developing this set of best practices involved undertaking a comprehensive review of relevant literature (see bibliography); contacting industry associations and research institutes; and carrying out a series of consultative interviews and correspondence with POR buyers in the Government

1 The Office of Management and Budget (OMB) in the United States released a list of standards for statistical surveys in September 2006.

of Canada, top field suppliers to the federal government, and key academics in Canada and the United States with expertise related to survey response rates. In total, 26 stakeholders and organizations were consulted to validate and strengthen the best practices. Often, multiple individuals within an organization offered feedback. A detailed discussion of the methodology can be found in Checklist of Best Practices and Assessment of Relative Impact of Best Practices on Response Rates.

Defining Response and Non-Response Rates

Response rate refers to the proportion of people who participated in a survey compared to the actual number of people sampled from the target population. In general terms, it is calculated by dividing the number of people who completed the survey by the number of people selected to participate. *Non-response* occurs when a unit of the sample does not complete a survey. Typically, non-respondents fall into one of two groups: people who refuse to participate in the survey (*refusals*) and those who cannot be reached during data collection (*non-contacts*).

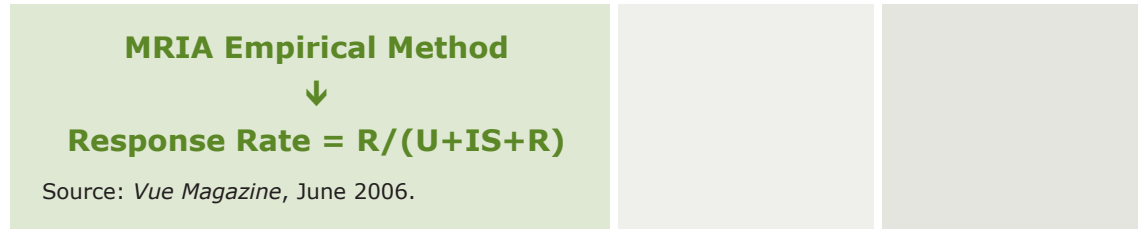
Response Rate Calculations

MRIA is the leading national association for POR professionals in Canada, and its definitions and methods are the ones most widely applied by private industry in Canada. Outside of Quebec, surveys conducted by private industry for the Government of Canada generally use the MRIA method to calculate response rates. MRIA recently adopted a new standard response rate calculation, which has been endorsed by Statistics Canada and l'Association de l'Industrie de la Recherche Marketing et Sociale in Quebec. It comprises two rates: a primary (Empirical Method) response rate and a secondary (Estimation Method) response rate. The Empirical Method should be used to measure data collection efforts, and the Estimation Method should be used during the analysis as a secondary measure to assess the quality of the survey data. Described below is the MRIA Empirical Method, the main response rate calculation.

Using the Empirical Method, the response rate is calculated by dividing the number of responding units by the sum of *all* in-scope and unresolved units. To understand this calculation, a few terms require definition.

- **Unresolved units (U):** These are all non-responding units for which eligibility cannot be determined—for example, telephone numbers that result in calls where the phone rings but no one answers. All other telephone numbers are classified as resolved.
- **Resolved units:** These are divided into in-scope and out-of-scope units.
- **Out-of-scope units:** These are telephone numbers that are invalid—that is, they are not in service, or they are business numbers in a household survey or vice versa. **These numbers are not calculated as part of the response rate.**
- **In-scope units:** These are classified as either responding or non-responding units. Non-responding in-scope units (IS) include people who refuse to participate, who are not available to talk or who face a language barrier in responding.

- **Responding units (R):** These are all in-scope units (respondents) who provided usable information. They include disqualified or ineligible respondents—that is, those screened out at the beginning of the interview.



To calculate the response rate for a telephone survey, divide the number of respondents by the sum of all units of the sample: unresolved units, in-scope non-responding units and responding units.

Why Are Response Rates Important?

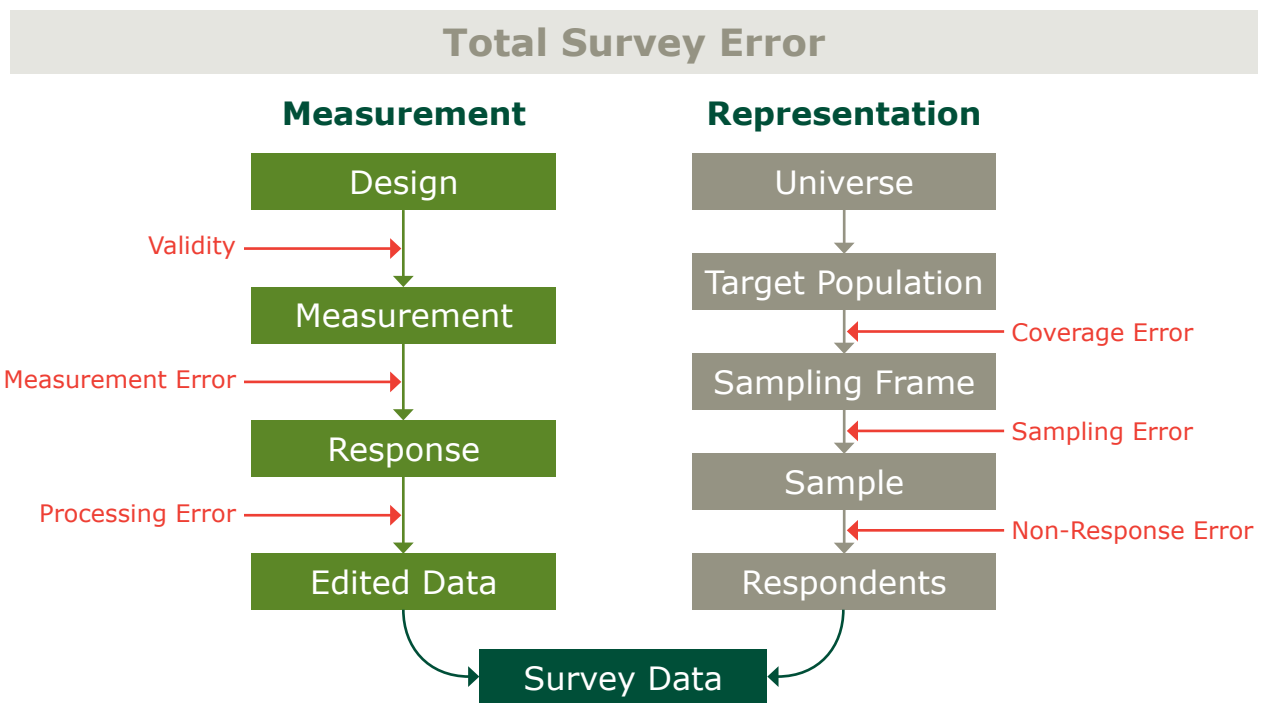
Response rates are an important measurement in survey research because **they reflect the level of effort** undertaken during data collection and **help describe the reliability** of the resulting data. Survey non-response can bias samples (and therefore survey data) by making the sample composition substantively different from the target population. Bias, in this instance, refers to the difference between the sampled units and the target population. Just as a randomly selected sample represents the target population, so too must the actual survey respondents. The biasing effect of non-response can be greater as the response rate drops; therefore, **survey organizations seek higher response rates to decrease the likelihood of non-response bias**. Survey error resulting from non-response, however, will only occur when there are significant differences between respondents and non-respondents. *Why?* Error resulting from non-response is a function of both the response rate *and* the extent of differences between respondents and non-respondents. This fact means that low response rates do not necessarily result in low data quality.

As a result of the general decline in response rates, the research community has begun focusing on the validity of data related to low response rates. Numerous studies have been undertaken during the last decade to advance knowledge in this area. Overall, the findings of these studies question the methodological tenet that low response rates *necessarily* compromise data validity (Visser et al., 1996; Keeter et al., 2000; Curtin et al., 2000; Merkle and Edelman, 2001; Halpenny and Ambrose, 2006). These studies suggest that higher response rates do not necessarily produce more accurate data, and that surveys with low response rates can still provide useful and valid data, other things being equal—for example, provided sample selection and weighting are undertaken carefully. The studies reinforce the premise that survey error resulting from non-response will only occur when respondents differ from non-respondents. The problem for survey researchers is understanding when non-response will not cause survey error and when it will introduce bias that will affect data reliability—that is, under which conditions are respondents and non-respondents most likely to differ?

In the absence of being able to predict when non-response will bias a sample, obtaining the highest response rate possible within the constraints of a particular study is beneficial to all those involved in survey research. Though high response rates are increasingly difficult to achieve, **efforts should**

always be made to maximize response rates. However, efforts to increase response rates should be considered within the context of *total survey error*; sampling, coverage and measurement errors may all decrease data quality. Any effort to maximize response rates beyond a certain point can be counterproductive if the measures divert resources from these other important sources of potential error. As well, increasing response rates often costs money. Therefore, measures to maximize response rates need to be considered in light of the study budget, timeframe, the way in which the results will be used and the level of accuracy needed. Response rates, in short, should be one consideration among many when undertaking research design.

As illustrated in the diagram below, response rates are only one of numerous areas where error may affect the quality of the survey data.



Source: Dr. Robert Groves, *Practical Tools for Non-response Bias Studies* seminar (March, 2006).

What Are Realistic Response Rates?

In Canada, there are no standards for minimum acceptable response rates. In addition, industry does not have a no-response rate threshold that can be used to determine when survey results might be subject to non-response bias (Groves, forthcoming). Realistic response rates will vary depending on the data collection method used—for instance, telephone, online or mail—and the specific parameters of the survey, including budget, time, target population, survey length and sample frame. Typical response rates for most commercial telephone surveys now tend to range from 10% to 20%, although some surveys—such as omnibus studies and political polls—can yield response rates in the single digits (Halpenny and Ambrose, 2006).

The MRIA Response Rate Committee analyzed telephone survey refusal rates and response rates in 1995, 1999 and 2002. These studies looked at response rates for one-time telephone surveys—that is, surveys that were not tracking or omnibus surveys. These surveys had incidence rates of 50% or more, used random samples and had no identifiable sponsor. The MRIA analyses showed that response rates for these surveys declined to 12% in 2002 from 16% to 17% in 1995–1999.

The Council for Marketing and Opinion Research (CMOR) in the United States also tracks response, cooperation and refusal rates for studies. Recent averages for all telephone surveys and for random digit dialling (RDD) surveys are presented in the following table.

Some organizations, including Statistics Canada and other statistical agencies, continue to achieve response rates of 70% or more. These organizations benefit from a unique set of circumstances: mandated compliance, sponsorship advantages, long field times and, often, much larger budgets than those available to other organizations. Further, unlike POR researchers, who measure attitudes, knowledge and opinions, these organizations tend to collect factual information, through surveys such as the Census.

Average Telephone Survey Response Rates in the U.S., 2004

| Telephone overall | Number of surveys | Rate |
|--------------------------|-------------------|-------|
| Average response rate | 1,364 | 17.0% |
| Telephone RDD | Number of surveys | Rate |
| Average response rate | 761 | 9.17% |

Source: CMOR, September 2004.

While these data are not directly comparable to the MRIA data due to differences in response rate calculations, they do suggest a similar direction in response rates. The 2004 average response rate in the U.S. (for all types of telephone surveys) is 17% based on 1,364 industry surveys, and for RDD surveys it is 9.17% based on 761 industry surveys. These averages are somewhat lower than those in 2001, when the average overall response rate was reported to be 23.8% for telephone surveys and 12.2% for RDD telephone surveys.

Average response rates for customer satisfaction, list-based sample and business-to-business telephone surveys, as tracked by CMOR, are shown in the following table.

| Average Telephone Survey Response Rates in the U.S., 2004 | | |
|---|-------------------|--------|
| Customer satisfaction | Number of surveys | Rate |
| Average response rate | 69 | 32.96% |
| List | Number of surveys | Rate |
| Average response rate | 414 | 30.93% |
| Business-to-business | Number of surveys | Rate |
| Average response rate | 120 | 17.15% |

Source: CMOR, September 2004.

As would be expected, these response rates are significantly higher than those reported for RDD telephone surveys. In all cases, the data collection efforts could draw on lists, while in some instances—particularly the customer satisfaction surveys—the respondents had an interest in responding to the survey.

Organization and Use of the Best Practices

This document includes 50 best practices designed to help ensure that organizations achieve the highest response rate possible for a particular study. These best practices were developed after a comprehensive review of the most current literature related to telephone survey response rates. They are organized according to the four main stages of a research study: design, data collection, analysis and reporting. Each best practice description includes the following elements:

- identification of the best practice or research standard;
- the rationale behind the best practice and issues of importance to consider; and
- information on implementing related guidelines—that is, mini best practices.

This document is designed to be a basic reference for people conducting Government of Canada telephone surveys, augmented by a bibliography providing more detailed information. For the convenience of readers, cross-referencing is used where applicable throughout the document. In addition, a **Best Practices Checklist** can be found on page 11. It can be used on its own or in conjunction with this fuller reference document. The best practices are labelled in a corresponding manner so readers can move easily between the Checklist and the full reference document.

Finally, while response rate issues can be addressed throughout a project, emphasis should always be placed on design and data collection features to maximize response rates. In addition, not all of the best practices outlined in this document will be appropriate or feasible for all POR studies. With this in mind, some of the best practices are more effective at maximizing response rates than others. All factors being equal, **one of the most important things an organization can do to help maximize response rates is to allocate adequate time to collect the data.** The organization should also focus on the survey questionnaire to make sure that it is free of bias, measures what it is intended to measure, and is as short, clear and simple as possible.

Stage 1: Research Design

1.0 Choose an appropriate data collection method

Rationale

Choosing the most appropriate data collection method is central to attaining a good response rate. The merits of each method must be considered within the context of the target population, the survey objectives, the type of information to be collected, the research budget and the time constraints.

Best Practices

1.0.1 Select the most appropriate survey method.

Because this document focuses on the telephone as a survey method, the question here will be limited to the following: *When is a telephone survey the most appropriate data collection method?* Here are a few guidelines to consider.

- **Target population:** Consider conducting a telephone survey when the sampling population is the general public—that is, the national adult population of Canada. Online data collection has presented a few problems for surveys of the entire Canadian adult population, particularly coverage and sample frame issues.² Internet access is widespread but is still not as widespread as telephone access, and Internet use among certain types of audiences is more limited than among others. In addition to these coverage problems, there is no complete sample list³ available for Internet users (see BP 1.1.1). While the Internet is an excellent data collection method for certain audiences and research objectives, at the time of this report (March 2007), it has greater coverage and sampling limitations than some other methods.
- **Sample frame:** The completeness of the sample frame is critical to limiting coverage error. Telephone surveys currently provide the best coverage of the general population, but organizations surveying smaller target populations may wish to consider the quality and composition of available e-mail lists. For example, online data collection might be appropriate and advisable when surveying special audiences, such as scientists and academics. Their e-mail addresses are attainable, and it is often difficult to contact such people by telephone because they travel, rely on voicemail or have gatekeepers, for example.

2 For a good discussion of online sampling concerns, see Guha (2006).

3 RDD can be used to help overcome the lack of complete telephone listings, but no equivalent to RDD is available for online surveys.

- **Size of budget:** Collecting data by telephone typically costs more than using self-administered data collection methods. When the budget is limited, consider using online, mail, fax or e-mail surveys rather than telephone data collection.
- **Length of time available for fieldwork:** If data are required *very* quickly—that is, overnight or within a few days—and the response rate is not an issue, consider using telephone or online data collection. However, use the latter only where coverage issues are not factors in the decision-making.
- **Level of data precision needed:** A telephone survey is appropriate when a high degree of accuracy or statistical reliability is required for general public surveys.⁴ Currently, there is no method for selecting random samples from general e-mail addresses, which means that probability sampling is not yet possible using online data collection. This concern may not be important if the research sponsor only requires “directional” information—that is, data that provide approximate magnitudes, rather than precision. While there are studies that show Internet panels have produced results similar to those of comparable telephone samples (Berrens et al., 2003), online surveying is a contentious issue among survey researchers. It is evolving quickly, based on new data and learning.
- **Research objectives:** Telephone surveys are appropriate for questionnaires shorter than 20 minutes and studies where respondents can respond to questions quickly. Avoid conducting a telephone survey when the questionnaire lasts over 30 minutes; when respondents need to check things, such as financial information in their files; or when interviewers need to use visual aids to explain concepts or complex scales. Under these circumstances, a self-administered survey might be more appropriate.

While many factors will influence the choice of an appropriate data collection method, choosing the most suitable method will increase the likelihood of achieving a higher response rate.

1.0.2 Consider alternative methods to contact hard-to-reach respondents.

After selecting the data collection method, consider strategies for contacting “hard-to-reach” respondents. Depending on the target audience and subject of the survey, some respondents may be much harder to contact than other segments of the population. These people include members of low-incidence populations—those defined by quite narrow demographic (or other) specifications. Instead of relying solely on the telephone, consider using a

Examples of hard-to-reach respondents

Corporate executives
Elected officials
Physicians
Farmers
Technology executives

4 Tavassoli and Fitzsimons (2006) found that people respond differently to the same question when typing an answer rather than saying it. Response modes that require written, not spoken, answers (such as online surveys) change the representation of attitudes and behaviours. The implication drawn from this study is that online surveys may not be useful in discerning changes in attitudes over time.

mixed-mode approach to contact or obtain data from hard-to-reach respondents. In fact, survey organizations are increasingly using mixed-mode survey designs to maximize response rates.

A mixed-mode approach increases the likelihood of contacting hard-to-reach respondents and can offer them response methods they might find more convenient than the telephone. Use of a mixed-mode approach assumes that alternate contact information is available for the target segment of the population.

A mixed-mode approach may increase the cost of data collection and the length of the data collection period. However, it can also shorten the time required to conduct the fieldwork and can reduce the costs of achieving the target number of completes (such as the costs needed to make numerous callbacks or refusal conversions to complete interviews with hard-to-reach respondents). Impact on cost and timing aside, **a mixed-mode approach does tend to yield higher response rates** for studies.

The impact on survey *accuracy* of using a mixed-mode approach must also be weighed against the potential bias of not hearing from these respondents. For instance, the use of different data collection methods can result in data that are not entirely comparable, depending on the types of questions asked.

Consider a question with a long list of responses. In a telephone survey, the interviewer reads the list to respondents and can rotate the possible answers to account for primacy/recency effects—that is, the tendency of respondents to pick the first or last response presented. However, it is not as easy to vary the order of answers when using a paper-based, self-administered questionnaire. Multiple versions of the questionnaire with randomized ordering are needed.

As another example, in a telephone survey, interviewers may ask respondents an open-ended question and use a pre-coded list of answers (which are not read to the respondent) and the “other/specify” option to record responses. This approach facilitates coding and data comparability. However, this type of question does not work at all in online surveys. Replacing it with a truly open-ended question is not a good option because of the high non-response rate for open-ended questions in online surveys.

In short, a mixed-mode approach may introduce a new variable that must be considered during the analysis: whether people responded differently to self-administered questions than to interviewer-administered ones. Consider a mixed-mode approach when the potential for non-response error outweighs concerns related to measurement error.

1.0.3 Consider allowing proxy respondents.

There is a general consensus in the research literature that proxy respondents should not be used when the research is designed to measure attitudes, opinions or knowledge. Current evidence suggests that data from proxy respondents sometimes differ systematically from data obtained from respondents (Groves

Possible mixed-mode approaches

- Telephone plus mail, fax or e-mail
- Telephone plus online
- Telephone—In-person

Proxy respondents

Data are collected from one person who acts as a proxy for another individual or the entire household.

et al., 2004). Nevertheless, under the right circumstances, proxy respondents can increase response rates by enabling survey organizations to reach respondents who otherwise would not be able to take part in the survey. For some studies, using proxy respondents is better than obtaining no response at all.

Develop a clear set of criteria to determine which sorts of studies are suitable for the use of proxy respondents. Proxy respondents can be viable for surveys that collect factual or experience-based information. If the information being collected is not opinion-based, it is reasonable to assume that people other than the intended respondent could answer, as long as they possess the needed information. Proxy respondents may also be useful when the respondent speaks neither official language or has a relevant disability, such as a hearing impairment. Interviewers should clearly identify proxy interviews in the data set to ensure that tests can be run during the analysis to look for variations between proxy and non-proxy interviews.

1.0.4 Collect the data at the most appropriate time of year.

Ideally, data should be collected at the most appropriate time of year to achieve the highest response rate possible. Avoid surveying the target population during times of the year when members are hard to reach or less willing to participate in research. Such times will depend on the specific audience, but try to avoid interviewing during major holidays, audience-specific events, three-day weekends and vacation seasons. After a specific number of callbacks— attempts to re-contact people who were not available when first called—these telephone numbers will be retired and new telephone numbers attempted to achieve the required number of completed surveys. Retiring valid numbers—for example, those where the interviewer got a busy signal, no answer or an answering machine—and adding new contacts will decrease the response rate.

Examples of time considerations

Surveying the general public in July and August, when Canadians typically take vacations, will generally result in lower response rates due to these absences. Likewise, avoid surveying accountants during tax season, or public servants during the March 31 fiscal year-end period.

If one cannot avoid collecting data during these times, build a longer field period into the project timelines. Unless a longer interviewing window is scheduled, the response rate is likely to be lower and the sample of respondents might be biased (if survey respondents differ systematically from non-respondents). To make sure the sample is representative of the target population, the interviewing invariably will take longer to complete. That is the trade-off for conducting POR telephone surveys at less appropriate times of the year.

1.0.5 Allow adequate time to collect the data.

The length of the data collection period can have a direct impact on response rates. It will depend on the sample size, interview length and interviewing supplier capacity. Such factors aside, the field period should be sufficient to achieve a good response rate. A general rule is that **the longer a study remains in field, the higher the response rate** (although there is a point

when the return on invested time and budget will diminish).⁵ Telephone surveys with short data collection periods tend to suffer from lower response rates because the telephone numbers may not receive as many callbacks before being retired, or the callbacks are not as varied in terms of time of day or day of the week. As well, a person refusing one day may be in a different situation or frame of mind a few weeks later, and more amenable to being interviewed.

The length of the interviewing period is an essential factor in maximizing response rates to telephone surveys (Halpenny and Ambrose, 2006).⁶ A longer field time increases the chances of reaching a respondent and improves the chances of finding that respondent in a situation conducive to taking part in the survey.⁷ The following table provides an approximate indication of the range of response rates that can be expected from a general public RDD telephone survey, depending on the length of the field period.

| Response rate | Field time* |
|----------------------|--------------------|
| 7% to 15% | 2 to 6 days |
| 20% to 35% | 1 to 4 weeks |
| 35% to 60% | 6 to 12+ weeks |

*Times assume sufficient field resources are available, such as budget, computer-assisted telephone interviewing stations and interviewers.

The time allotted for data collection should also reflect incidence level, target audience and research objectives. All things being equal, a survey of a low-incidence population or one of hard-to-reach elected officials will require more time to complete than a survey of the general population.

In addition to these considerations, the type of information being collected can influence the field time required. Should it be necessary to capture a reflection of the target population’s attitudes or behaviours at a specific moment in time, a longer field period might compromise these objectives. An example of this type of study is a “recall” survey following an event such as an advertising campaign. If the organization does not take measures to mitigate the effects of the time lapse, prolonged data collection may not yield accurate data. As time passes, the likelihood of respondents recalling the advertisement decreases. Other types of POR studies where this might apply include mailout recalls, assessments of recent service interactions and time-use studies, such as diary studies where respondents must record an activity or behaviour at a specific point in time).

5 Using data on response rates for 205 telephone surveys, McCarty et al. (2006) found that even a one-day increase in the length of the field period (per 100 cases) resulted in a 7% increase in the response rate.

6 Findings of studies undertaken by Keeter et al. (2000) and Halpenny and Ambrose (2006) found that response rates for identical surveys improved substantially the longer the surveys remained in field.

7 Gallagher et al. (2006) found that maintaining consistently high response rates over time in parallel RDD surveys required an increasing number of field hours and call attempts per completed interview.

1.1 Ensure adequate population coverage

Rationale

The response rate is one indicator of survey quality. Sampling and non-sampling errors can also affect the quality of a survey. No research design is perfect, but efforts should be made to minimize sources of error, independent of the response rate.

Best Practices

1.1.1 Define the research population.

In survey research, the *population* or *universe* refers to the target audience or the group of people of interest—for instance, the general public, private sector executives or seniors. The population to be included in the survey must be relevant to the research objectives. Properly defining the population will determine who should be included in the sample and who should not. This step is essential to conducting good quality research and has an indirect impact on response rates. The more important that potential respondents perceive the research to be, and the more relevant it is to them, the more likely they are to respond and take part in the survey. **When the target population has no direct link to the survey topic, an effective introduction is critical. Consider how best to frame the research as relevant to these potential respondents (see BP 1.3.2).**

Topic interest plays a role in achieving high response rates. Generally, the more interesting the topic, the more likely people will be to respond (Groves, 2004).

1.1.2 Select an adequate sample size.

Select a sample size that relates to the target population, the research budget, the intended data analyses and the required degree of accuracy. Sample size does not have an impact on response rates. Rather, it affects the accuracy of the results. **The larger the sample size**, the smaller the margin of error and **the more reliable the results**. Choosing the right sample size will help minimize unnecessary sampling error. It will not help to increase the response rate per se.

To determine the appropriate sample, consider the following factors.

- **Target audience:** The size of the survey population, in part, will influence the sample size. Typically, the marketing research industry uses a 10:1 sample-to-completion ratio as a guide. In other words, contact information for 10 potential respondents is needed to achieve one completed interview.
- **Budget:** Conducting telephone interviews costs money. Data collection costs are based, in part, on the length of the interview, the number of completed interviews and the incidence level of the population.
- **Data analyses:** If there are subgroups that require analyses, the sample size needs to be large enough to accommodate these analyses with enough reliability.

- **Accuracy:** The larger the sample size, the smaller the sampling error. The intended use of the data will help guide the size of the sample. If the results need to be highly accurate, a smaller the margin of error will be required.

1.1.3 Reduce coverage error.

The sample frame is like a map that determines who is eligible to participate in the survey—for example, members of the general public, Ontario teachers or users of a certain government program. It is important to put in place a sample frame that effectively corresponds to the population of interest. After doing so, develop a sample list that includes *all elements* of the research population and constitutes the source from which survey respondents will be drawn. Coverage error occurs when this list does not include all segments of the target population. Consider a telephone survey of the general public. RDD samples generally include only landlines, not cell telephone lines. In Canada, approximately 94% of households have landlines, 4.8% have cell phones only, and 1.2% do not have any telephone. As a result, an RDD survey of Canadians will have minimal, but still some, coverage error. Minimizing coverage error will increase the likelihood that the information collected accurately reflects the target population.

A high response rate to a survey based on a flawed or incomplete sample frame may not produce valid data. Consider a telephone survey of the general population that results in a high response rate but uses local telephone directories as its sample frame. Given that approximately 10 to 20% of the population has an unlisted or newly listed telephone number, not everyone has an equal chance of being contacted for the survey. As a result, the survey data may not reflect the opinions or attitudes of the segment of the population with unlisted telephone numbers. If this segment of the population differs demographically or attitudinally from people with listed telephone numbers, the survey findings may not be valid.

Common sampling methods for telephone surveys include RDD, sample lists purchased from list brokers and in-house lists (such as lists of clients, members or employees). Regardless of the sampling method used, survey organizations should consider the following.

- Ensure the sample frame and sample lists are appropriate and relevant to the survey objectives, questions and areas of investigation.
- Try to obtain a good sample—for example, a sample that has been pre-screened for out-of-scope telephone numbers. A poor-quality sample can have an impact on the field budget because interviewers will spend time trying to call inappropriate numbers (such as not-in-service, fax or modem numbers) or non-eligible respondents (such as business numbers for a household survey).
- Make sure the sample frame and lists are up to date and accurate. Consider how and when it was updated. To illustrate this point, take a sample frame developed from the previous year’s client list for a government program. Not capturing the entire target population—that is, new clients—may introduce non-response bias into the data.
- Try to include as much demographic data as possible when pulling a sample from established lists. Not only will doing so reduce the length of the interview (see BP 1.1.2), but it will also provide information for non-response analysis, if necessary (see BP 3.0.3).

- Identify under- or over-represented population segments in your sample lists before fieldwork begins. For instance, studies indicate that telephone coverage rates tend to be lower among low-income households and young people. **Use of quotas or targets is a common way to address any such deficiencies. In other words, organizations make more of an effort to reach under-represented groups and set limits related to over-represented groups.**
- Ensure that the sample does not include duplication. People may appear on more than one program or client service list, for example. Cross-check lists before beginning fieldwork.

Cell telephones

The increased use of cell telephones among some segments of the Canadian population presents a growing problem. As more households rely *only* on cell telephones, telephone coverage error may increase. In December 2005, Statistics Canada reported that 4.8% of Canadian households have only a cell telephone (as compared to 1.9% in 1993). That number rises to 7.1% in B.C. and to 7.7% among low-income households (Statistics Canada, 2005).

Research undertaken in the United States has found that cell-only Americans differ from those with a landline (Purcell, 2006; Pew, 2006; Tuckel et al., 2006). Cell-only users tend to be younger (18 to 29 years) and are more likely to be single, lower income and renters (rather than homeowners). Currently, evidence suggests that the cell-only phenomenon has not undermined national polls (Pew, 2006). Nevertheless, as the proportion of cell-only households increases, it may become prudent to augment RDD samples with cell samples to provide a more representative final sample (Purcell et al., 2006)—for example, one that includes young people, who tend to be underrepresented in RDD surveys.

Research suppliers typically handle sampling issues. Research clients might consider asking their suppliers the following questions.

- **What is the source of the sample frame and when was it drawn?** This information should be included in the methodological section of the final report.
- **Was the sample pre-screened for out-of-scope telephone numbers and checked for duplication?**
- **Does your RDD sample frame include unlisted or cell telephone numbers?** Currently, RDD sample frames do not typically include cell numbers. Interviewing people on a cell telephone presents several unique issues. There are safety risks—for example, a respondent might be driving while completing a survey. Respondents might be distracted or in a public location, which may limit their attentiveness and candour, leading to data quality problems. Also, it may not be ethical to conduct surveys this way, since cell telephone users will be required to pay their provider for the air time needed to conduct the interview. If cell telephones are included in the sample frame, the research supplier should note this fact in the methodology section of the report.

1.2 Minimize respondent burden

Rationale

Survey research is dependent upon the goodwill and cooperation of respondents. Increasingly, people are becoming harder to reach and less likely to take part in survey research. Recognizing the burden placed on respondents, research should be designed to maximize participation rates once contact has been established.

Best Practices

1.2.1 Keep the interview as short as possible.

Response burden is an unavoidable part of survey research, but efforts to limit it can help maximize response rates. Shorter questionnaires can improve response rates, particularly if interviewers inform respondents that the interview will be short.⁸ In

practical terms, surveys of 10 minutes or less are considered relatively short and not overly burdensome. Surveys of 15 minutes are common in federal government POR and do not tend to place an undue burden on respondents. Telephone surveys of 20 minutes or more are less common and can be expected to result in lower response rates, other factors such as survey topic and target audience being equal. Unless necessary, avoid interviews longer than 15 minutes to help to maximize response rates. Keeping the length of the questionnaire to a minimum, while still achieving the research objectives, will help yield higher response rates for studies.

The **longer the survey**, the less likely people are to take part or to complete the full interview.

Before designing a questionnaire, it is a good idea to review what is already known about the target population in relation to the study objectives. Assess current information needs, determine whether some of this information is available elsewhere, and prioritize issues and questions to make it easier to manage questionnaire length. This review will help to ensure that departments and agencies collect essential information only. The result will be a focused questionnaire. Not only will a shorter questionnaire increase the response rates of individual studies; limiting response burden will also help to cultivate more favourable perceptions of survey research generally and may increase the likelihood of Canadians agreeing to an interview when contacted for future surveys.

1.2.2 Design a well-structured questionnaire.

A well-structured questionnaire ensures that the data collected satisfy the objectives of the research and minimizes the burden placed on respondents. A good questionnaire collects *only*

⁸ See, for example, McCarty et al. (2006) or Dillman et al. (1993). While the literature examining the impact of survey length on response rates is not conclusive (see Bogen, 1996), logic and practical experience suggest that longer questionnaires will result in lower response rates.

the information that is essential to the survey objectives. Consider the following guidelines when developing the questionnaire for a study.

- Make the survey content as relevant as possible to the respondent.
- Ensure the introduction is well written (see BP 1.3.2). The introduction is the only opportunity interviewers have to get a potential respondent to agree to an interview. Most people decide in the first seconds of a telephone call whether they will respond to the survey.
- Pay careful attention to screener wording when interviewers must establish people's eligibility to participate in the survey. Research has shown that when potential respondents know the eligibility criteria, response rates decrease. In other words, people report themselves as ineligible when external eligibility data, such as census data, suggest that they meet the inclusion requirements (Shreffler et al., 2006).
- Include definitions, explanations and instructions for respondents and interviewers, if necessary. If respondents are unlikely to understand a term used in the questionnaire, give them the definition, if doing so will not compromise the data.
- Frame each question so that it is as relevant to the respondent as possible. Check question relevance by pre-testing the questionnaire (see BP 1.2.3).
- Ensure that questionnaire transitions are well positioned and sufficient to guide the respondent through the survey. Unlike online or paper-based questionnaires, telephone surveys are not affected by page layout. The only guides for the respondent are the interviewer and the topic transitions.
- Write questions that are clear, simple and free of jargon. Ensure the language is appropriate to the target population. Try to keep questions short, replace long words with shorter ones and make sure questions are as direct as possible. Questions that are difficult to understand when read out loud will compromise data quality and make it harder for the respondent to answer. Anything that increases the response burden may decrease response rates.
- Make sure respondents can answer the questions. Pay attention to skip patterns. An interviewer should not ask respondents questions they cannot be expected to answer. For example, if respondents have not used a service, the interviewer should not ask them to rate their satisfaction with the service. Such questions will frustrate respondents, which can result in respondents terminating the interview before it is complete.
- Keep to a minimum the number of repetitive questions, including long batteries of questions (such as lists in which a respondent is instructed, "Please rate the extent to which you agree or disagree with the following 20 items."). While it is tempting to try to cover as much content as possible, doing so can result in respondents providing automatic or less thoughtful responses that do not discriminate among the issues being explored. This tendency may compromise data accuracy. In addition, respondents may be more likely to terminate the interview before it is complete if they view it as repetitive.

- Avoid repetitive response options, for similar reasons. If the same rating scale is used for each question, do not repeat it at the end of each question unless the respondent asks. Repeating scales after each question lengthens the interview and frustrates respondents who can remember the scale.
- Use scales that respondents can easily understand. Measurement error can result when each respondent interprets the scales differently.
- Avoid repetitive question patterns. For instance, avoid using a series of “yes/no” questions that lead to additional questions if the respondent says “yes.” Respondents may quickly catch on to this pattern and might begin to say “no” to move through the interview more quickly.
- Avoid overusing open-ended questions, or consider conducting qualitative research first to address this information need. Closed or semi-closed questions are easier for respondents to answer, require less coding, are easier to track over time and typically provide more meaningful survey data.

1.2.3 Review the translated questionnaire.

Closely review the translation of the questionnaire. The language must be as clear and simple as that in the original document. Pay particular attention to the accuracy and appropriateness of the translation. The “correct” translation of a text *might* not always reflect the popular vocabulary of the target audience. Efforts to produce a well-designed questionnaire in one language will be undermined if the translation is not subject to the same level of scrutiny.

1.2.4 Pre-test the questionnaire.

Pre-testing the questionnaire is an excellent way to work out any potential problems with the research instrument before the fieldwork.⁹ A pre-test will help determine the length of the survey and ensure that the questionnaire is measuring what it is designed to measure, that respondents understand the questions and can provide the information requested, and that interviewers understand the questionnaire and the computer-assisted telephone interviewing (CATI) programming. In short, it is an important step in the development of the research instrument.

A well-designed survey will reduce the response burden, which can improve the response rate.

Consider the following when pre-testing the questionnaire for a study.

- Pre-test the questionnaire in English *and* French, if the survey will be conducted in both languages. Not only are the words used in the English and French versions of the questionnaire different, but there can also be differences in the way anglophones and francophones interpret information. If the translated version of the questionnaire

⁹ The importance of conducting a pre-test is reflected in the Office of Management and Budget standards, which make pre-tests mandatory (unless the instrument has previously been used successfully in the field, such as in a tracking survey).

is not available when the fieldwork starts, conduct the pre-test in one official language, and then re-do the pre-test later in the second official language, once that version of the questionnaire is available.

- Listen to the pre-test interviews and report any concerns to the research supplier, who should also be listening to the interviews. Pay attention to the flow of the interview, respondents' comprehension and feedback, patterns in respondents' requests to have some questions repeated, and the interviewers' technique and ability to pronounce words in questions. Adjustments to question wording may help elicit the right information from respondents, and make their experience easier and more pleasant. If the research instrument is adjusted significantly, think about pre-testing it again.
- **Ask the research supplier to debrief the interviewers** after the pre-test. This step can serve two purposes. First, it is an opportunity for interviewers who conducted the pre-test to state whether they noticed any additional issues—such as those related to comprehension, wording and survey flow—that did not arise in the pre-test interviews.¹⁰ The interviewers are the front-line delivery staff for the survey and are closest to the respondents, so they might have additional insights to share. Second, the debriefing is an opportunity to provide interviewers with direction that might help them take respondents through the interview more professionally or efficiently, based on adjustments desired by the research client and supplier. Pre-tests often result in adjustments to the way in which interviewers phrase questions or code answers. As noted, efforts to reduce the response burden can improve the response rate. Data resulting from the pre-test should *not* be used as part of the sample if substantial changes are made to the questionnaire.
- For federal government projects, the current standing offer requires pre-tests with 15 interviews in each language. Additional pre-test interviews may be required if substantial changes are made to the questionnaire.
- For lower-incidence populations—such as smokers, who comprise 20% of the population—it can be a more efficient use of time to record the pre-test interviews and then distribute the recordings to research team members for their review. This approach eliminates the “down time” otherwise required to reach another respondent on the telephone.

As an additional quality control measure following the pre-test, but before the survey gets well into field, it can be helpful to **have the top-line frequencies run after 50 to 100 completed surveys**. Reviewing the frequencies can help determine whether people are being routed through the questions they should be asked. This approach not only helps ensure that respondents are asked the questions they should be asked, thus minimizing potential frustration; **it is also an excellent check on data quality, conducted at a time when adjustments to the questionnaire are still possible.**

10 If the research team is monitoring the pre-test interviews live at the field house, it is generally not possible for the team to hear all of these interviews, since they usually run concurrently.

1.3 Incorporate methods to encourage participation

Rationale

Reaching a potential respondent is just the first step in the interview process. Once a potential respondent has answered the telephone, he or she needs to agree to take part in the survey. Incorporating strategies designed to encourage participation is critical to achieving high response rates.

Best Practices

1.3.1 Notify potential respondents in advance of the fieldwork, where possible.

Using an advance information letter can help enlist survey participation and improve response rates (de Leeuw et al, 2006;¹¹ Link and Mokdad, 2005). An advance letter explains the background of the study, encourages participation and legitimizes the research. It can be used to position the research as a consultative exercise, particularly among special audiences such as stakeholder groups; respondents may be more interested in participating in a consultation than in simply doing a survey. Likewise, giving clients advance notice of a survey shows respect for clients, which can improve the response rate.

Advance notification is more common and practical in special-audience research than in telephone surveys conducted with the general public.

List-based sample frames—such as client, employee or other types of stakeholder lists—provide the *best* opportunity to send advance notification. Advance notification is less feasible in RDD and most other telephone surveys of the general public, when an accurate list of respondents is not available to the researcher. In some instances, only a subset of potential respondents for whom mailing addresses are available will receive a letter before the telephone call. While the overall response rate may benefit, the subset who received the advance letter may be over-represented in the final sample, which may introduce bias into the survey data.

If the research design incorporates advance notification of the target population, **the federal department or agency should send the letter on official stationery, where possible, rather than having the research firm send it on their letterhead.** This approach can increase the credibility and perceived importance of the research. A good letter should be kept short—no longer than one page as a general rule—and include the following elements.

- **A personal salutation, when possible:** Studies indicate that addressing potential respondents by name will help increase the likelihood that they will agree to an interview.

11 This recent meta-analysis of the impact of advance letters on response rates for telephone surveys concluded that pre-notification is an effective strategy. Average response rates went from 58% (no letter) to 66% (advance letter).

- **Information on the background and objectives of the research, including the way the results will be used:** State any direct or indirect benefits the respondent might receive as a result of the survey, such as improved service. In some instances, it might not be possible to reveal the objectives and goals of the survey, because doing so might influence potential respondents before the interview (see BP 1.3.2).
- **A department or agency contact person whom respondents can call to verify the legitimacy of the research:** Not only does this lend credibility to the study; it also helps to minimize any concerns people might have about agreeing to participate (see BP 1.3.6).
- **Assurances of anonymity and confidentiality:** When survey responses will remain confidential, it is important to make potential respondents aware of this fact. The knowledge that their privacy will be safeguarded if they participate can encourage those who would otherwise decline participation to take part in an interview (see BP 1.3.3).
- **A senior official signatory:** Similar to including the department or agency contact for surveys, including a senior official's signature on a letter will emphasize the importance of the research and encourage participation. The level and position of the signatory should be decided on a case-by-case basis and will vary according to the research objectives and the target audience.
- **A one-sentence introduction to identify the research company conducting this research.**
- **Encouragement to participate in the research and thanks for considering doing so.**

When it is not possible to use advanced letters, consider the following strategies, *only* on a case-by-case basis.

- **Promote awareness of the telephone survey through department and agency Web site notices:** This approach could be as simple as including a brief notice about the upcoming survey in the "What's New" (or equivalent) section of the Web site. Doing so will help lend legitimacy to the study, as well as prepare potential respondents for the telephone call inviting their participation. Use of this type of approach is most often reserved for special POR initiatives. Time does not typically permit this level of advance coordination.
- **Advertise the survey in local government service centres, if the target population is program clients or benefit recipients (such as Employment Insurance recipients being asked to participate in a client satisfaction survey):** While not all clients or recipients will visit a service centre, the department or agency could use the same type of advertising on its interactive voice response (IVR) system. This type of publicity can help to raise awareness among these Canadians that this type of research is taking place and that they might be called to take part.

- **Work with department and agency stakeholders, and other interest groups, to obtain their endorsement or support before the survey:** Use of this type of strategy depends on the nature of the research subject and target population. This caveat aside, response rates for research among special audiences can be expected to improve if the key association endorses the survey and encourages members to participate. For example, a telephone survey of family physicians would likely benefit from the support of the Canadian Medical Association.

1.3.2 Use effective survey introductions.

Effective introductions are necessary to increase the likelihood that the person will take part in the research. Since most telephone refusals occur before the interviewer has an opportunity to request an interview, an effective introduction should be short and appeal directly to people. Studies have found that the majority of refusals occur during the first minute of the call (Groves, 1990). While survey introductions need to convey a number of points, they *should* try to do so in the most efficient manner. In the introduction, the interviewer should do the following:

Survey research needs to distinguish itself from telephone marketing and solicitation calls. Professional survey introductions can help accomplish this goal.

- properly identify himself or herself;
- address the respondent by name, if that information is available (consider this approach on a case-by-case basis—it can help the interviewer bypass the gatekeeper, but it can also cause potential respondents to question their anonymity);¹²
- identify the organization sponsoring the survey, when this information can be revealed (see BP 1.3.5);
- briefly describe the survey, when the research objectives will not be compromised by revealing this information;
- inform potential respondents that their help is both important and useful to achieving the research objectives;
- mention that confidentiality and anonymity will be protected (see BP 1.3.3), if this is the case, but do so quickly and in plain language (otherwise, this information may make people feel less comfortable, not more comfortable, about taking part in the survey);
- refer to any incentive available to respondents (see BP 1.3.4);
- estimate the interview length, particularly for short surveys of 10 minutes or less, since this can boost response rates (if interviewers do not provide this information in the introduction, they should be instructed to offer it to the respondent if asked); and
- ask whether this is a convenient time for the respondent to conduct the interview and, if it is not, ask for a good time to call him or her back.

¹² See ZuWallack (2006) for a RDD household respondent selection method designed to increase response rates and reduce survey costs.

Informing potential respondents of the topic of the survey may increase response rates in some instances—for example, when it is an interesting topic or one especially relevant to the respondent. People cooperate at higher rates on surveys of interest to them, and this tendency is most evident when the topic is stated in the introduction. However, revealing the topic may compromise the research objectives. For example, in policy studies, an organization may want to hear from all aspects of the general public, not only those most interested in the specific policy area. Identifying the topic can sometimes lead to unwanted self-selection, where certain types of respondents opt into a survey and others opt out. If unsure about the impact on the research objectives of identifying the topic, use topic-neutral language in the survey introduction. For example, the interviewer could say he or she is “calling to discuss current issues of interest to Canadians.”

1.3.3 Offer assurances of confidentiality.

Assurances of confidentiality *may* allay concerns that potential respondents might have about survey participation. All surveys conducted by the federal government must contain privacy language, although the specific language included in survey introductions varies from department to department. While the specifics vary, privacy and confidentiality language should be appropriate to the survey, its objectives and its target population.

Example of privacy language

Your participation in the survey is completely voluntary and will not affect any dealings you may have with the Government of Canada. Your privacy is protected by law.

In addition, departments and agencies should *not* request personal information from respondents that is not relevant or essential to the survey. If this information is essential to the survey analysis, interviewers should explain to respondents why the information is important and how the data will be used (when necessary). Personal information might include any demographic information not absolutely required for analytical purposes, such as details about racial background, religion or sexual orientation that the respondent might view as sensitive.

1.3.4 Consider using incentives, where possible.

There is a general consensus among survey researchers that monetary and non-monetary incentives are an effective way to increase the response rate of a study (Fahimi et al, 2006). Incentives are particularly useful in surveys where the response burden is high—that is, where the respondent has to make an exceptional effort. Where possible, offer the incentive to respondents when first contacting them to take part in survey research (Church, 1993). Compared to no incentives at all, incentives provided after the survey is completed do not significantly improve response rates (Singer et al., 2000).

Incentives are logistically difficult to use in telephone surveys.

Incentives have some drawbacks. As well as increasing costs, they *may* increase the public’s expectation of payment, induce perceptions of inequity (if, for example, they are used only to convert refusals), and affect sample composition or responses to specific questions, with those receiving incentives potentially answering more positively. These concerns, especially those

related to optics, are only amplified in the context of conducting research for the Government of Canada.

Despite these weaknesses, incentives may be appropriate for some Government of Canada telephone surveys. Incentives may be useful if a survey has one or more of the following aspects.

- There is potential for bias due to non-response.
- The survey places a significant burden placed on the respondent.
- The target population is low incidence—for instance, youth smokers ready to quit.
- The target population is hard to reach—for instance, physicians.
- The study is a complex one, such as a longitudinal study or a panel.
- Incentives may lead to net cost savings—for instance, by reducing the number of callbacks.
- The overall research budget is substantial.

Distributing a research summary to special-audience respondents is a valuable and relatively common type of non-monetary incentive. Individuals taking part in such research tend to be stakeholders or other professionals who can benefit from, and attribute value to, the findings. Stakeholders are often interested in the outcome of the study to which they contributed, while other professionals see value in the competitive intelligence afforded them by a summary of the findings. Use of this form of incentive is appropriate and effective within the federal government context to increase response rates.

Other common incentives include monetary awards, gift certificates and entries in prize draws. Some literature suggests that the amount of a monetary incentive is less important to respondents than the fact that they receive an incentive—in other words, the incentive need only be symbolic.

1.3.5 Reveal survey sponsorship.

Revealing the sponsor of a survey can increase response rates, depending on the legitimacy and public perceptions of the organization.¹³ Research suggests that government-sponsored or -conducted surveys achieve higher response rates than those of most other organizations (Heberlein and Baumgartner, 1978; Groves and Couper, 1998).¹⁴ As such, identifying the Government of Canada, or a department or agency, as the sponsor of the survey can increase the response rate. Except for surveys such as awareness studies, when disclosing the

Sponsor identification

Identifying the sponsor of a survey can increase favourable opinion of the sponsor. Attitudinal results from sponsor-identified surveys should not be compared to surveys where the sponsor is not identified, such as general omnibus surveys.

13 Beebe (2006) found that familiarity with a survey sponsor increases the likelihood of participation.

14 Harris-Kojetin and Tucker (1999) found that during times when public opinion of the government was favourable, cooperation rates on a major government survey were higher.

sponsor would compromise the survey objectives, the practice should be to reveal sponsorship. The Government of Canada should be emphasized as the study sponsor; the name of the contractor conducting the research on behalf of the government should only be provided after the government is identified. If the department or agency is not well known, the survey introduction should identify the Government of Canada as the study sponsor, either with or without the department or agency name. For example, the interviewer could say, “XYZ Canada, an agency of the Government of Canada, is sponsoring this study.”

1.3.6 Offer a validation source.

Government of Canada telephone surveys should offer potential respondents the name and telephone number of a validation source for the study, if they ask for it. This source should be a contact at the sponsoring department or agency—typically, the POR buyer or end client who commissioned the research. The level of the individual is far less important than his or her knowledge of the POR study, including why it is being conducted, how the research firm obtained individuals’ contact information and how the government will use the data collected through the survey. Either one bilingual contact person or one person fluent in each official language is required. In addition, *all* surveys should be registered with the Marketing Research and Intelligence Association’s (MRIA’s) Survey Registration System, so that potential respondents can call a toll-free MRIA number to determine that the survey is legitimate.

Another effective validation approach in some instances is to refer potential respondents to a relevant toll-free number in the government blue pages of their telephone directory, such as the telephone number for the Employment Insurance Program or the Canada Pension Plan. This approach is particularly useful when surveying seniors, because they are often the target of telephone scams and can be more cautious in dealing with unsolicited telephone calls. This approach may not be practical for all POR telephone surveys; however, it is worth considering, depending on the scope of the research and the target audience. A related approach is to offer potential respondents the telephone number of the media relations office of the sponsoring department or agency.

1.3.7 Inform relevant government call centres or offices about the survey.

Related to the previous point, call centres and other relevant offices of the sponsoring department or agency should be informed of the survey in advance. Even if interviewers do not directly refer potential respondents to the call centre or other office to validate the survey, people may call anyway, asking about the research. This point is particularly relevant to client and stakeholder surveys. POR officials should notify relevant officials about the survey and provide them with information they can use to respond to enquiries. Consider developing a brief Q&A document for the media relations officer in the communications area of the department or agency undertaking the study.

Stage 2: Data Collection

2.0 Ensure effective sample management

Rationale

According to most definitions, the response rate is normally the proportion of completed interviews to the total number of sample records drawn. Effective management of the sample is required in order to achieve a higher response rate. Attempting to complete the survey based on the sample drawn initially is a major element of good survey practice, without “burning through the sample” (abandoning attempts to contact the respondent after the first call and moving on to contact other respondents in the sample) and resorting to sample replacement. Adding sample to the initial sample drawn will normally result in a reduced response rate.

Best Practices

2.0.1 Hire a data collection firm that submits to recognized field audits.

Most reputable data collection firms are *Corporate Gold Seal members* of the Marketing Research and Intelligence Association (MRIA) or, in Quebec, members of *l’Association de l’industrie de la recherche marketing et sociale*. Speak with the research supplier to determine whether the firm, or the data collection company conducting fieldwork on behalf of the firm, is a member of either association. This will *not* guarantee quality fieldwork, but it does offer greater insurance that the firm consistently meets professional and ethical standards of research practice. The MRIA, for example, conducts regular independent audits of its Gold Seal members.

2.0.2 Ration sample resources.

Discuss the appropriate rationing of sample with research suppliers. It is tempting to add new sample so that interviewers can quickly achieve the target number of completed surveys. Efforts to contact hard-to-reach people are sometimes not as stringent as they could be, as interviewers may focus instead on completing interviews with easier-to-reach people. In practical terms, this tendency means that fewer callbacks are attempted per sample record and that many of the people invited to take part in the survey are simply those available at certain times of the day when interviewers make calls.

Any new sample added to the data collection process must not invalidate the sample frame. Sample replicates, or small random samples drawn from the larger sample, can guard against invalidating the frame. Since each replicate is a miniature sample in itself, replicates can be added to the active cases as needed, without concern that they will skew the sample.

Sometimes it is not possible to “work the sample” thoroughly because the field period is not long enough. The trade-off, however, is lower response rates. The more telephone numbers that interviewers attempt to obtain the required number of interviews, the lower the response rate.

Time in field is a critical factor when it comes to achieving high response rates (see BP 1.0.5). In addition to decreasing response rates, “burning” through the sample may compromise the representativeness of the respondents. If interviewers do not reach some segments of the target population, the risk that non-respondents may differ systematically from respondents increases. The result is a low response rate and the potential for non-response bias.

2.0.3 Accurately track the disposition of calls.

A record of all call attempts to reach a potential respondent should be kept for all telephone surveys. This record, often referred to as the *call history* or *call disposition*, is needed to accurately calculate the response rate at the end of a project. Interviewers assign a code to the outcome of each call, including busy signals, not-in-service numbers and wrong numbers. The MRIA uses the following standard record of contact for telephone surveys.

| MRIA Standard Record of Contact Format for Telephone Surveys | |
|---|--|
| Disposition of Last Attempt | Explanatory Notes |
| 1. Not in Service 2. Fax/Modem Line 3. Business/Residential Line | Includes list errors |
| 4. Busy 5. Answering Machine 6. Call Blocking Device 7. No Answer 8. Language 9. Illness, Incapable 10. Selected Respondent Unavailable | Includes outstanding callbacks and appointments |
| 11. Household Refusal 12. Respondent Refusal 13. Qualified Respondent Break-Off | Before respondent selected Before answering all qualifying questions Any termination after qualifying |
| 14. Disqualified | Any disqualification of household or respondent during screening process. Includes quota filled, if identified during screening. Does not include quota filled based on sample data. |
| 15. Completed Interview | Includes any qualified completes that are rejected in post-edit. Where needed, add sub-categories for rejects and in-tab sample. |

Tracking the dispositions of calls will not directly maximize response rates, but it will clearly identify the reasons for non-response—that is, non-contacts versus refusals. The research supplier

can use this information to target non-respondents and to take steps during data collection to try to contact hard-to-reach respondents.

2.1 Make efforts to maximize contact rates

Rationale

Just as the design of questionnaires should incorporate features to encourage participation, data should be collected in a way that increases the likelihood of reaching potential respondents. Contacting people is the first step to completing an interview.

Best Practices

2.1.1 Vary the call scheduling.

Varying the call scheduling reduces call attempts and increases the likelihood of reaching a household (Cunningham et al., 2003). Potential respondents are more likely to agree to be interviewed if it is convenient for them to do so. Calling during the dinner hour may increase the likelihood of reaching people at home, but it may decrease the likelihood of participation because some people find these calls intrusive. If the ideal time to reach people at home is also the same time of day they are the least likely to agree to participate, then consider alternative call times. This strategy could be as simple as beginning calls earlier in the afternoon, perhaps at 3:00 p.m. rather than 4:00 p.m. A good contact rate is insufficient on its own. People must also agree to participate in an interview.

Certain audiences are more likely to be reached at different times of the day. For instance, during the day, it might be easiest to reach seniors at home and members of most occupational groups at work. The general public is generally best reached during the evening and on weekends. Unemployed individuals might best be reached using a combination of daytime and evening calls. Maximizing response rates requires calling at times that are most suitable for the survey's target audience while still ensuring coverage across a range of times in order to maintain the representativeness of the sample.

2.1.2 Offer flexible callbacks and appointments.

Potential respondents are busy and their participation in survey research is essential. When possible, therefore, **offer potential respondents flexible callbacks and interview appointments for all telephone surveys. Discuss this aspect of the data collection with the research supplier.** Making it as convenient as possible for an individual to take part in a survey can improve the response rate. Someone might be willing to take part in the survey but might not have the time to consider doing so when he or she receives the telephone call. Scheduling a callback at a suitable time might result in a completed interview—a step towards a higher response rate.

Much like offering flexible callbacks, allowing potential respondents to schedule a time to conduct the telephone interview can improve response rates. Appointments differ from flexible callbacks in that the intent of the first contact or initial telephone call is to schedule, not conduct, the interview.

Most senior-level executives are very busy people who may not handle their own telephone calls or time scheduling. Building the use of appointments into a survey of executives, for example, will help make the survey as convenient as possible for these individuals. If interviewers are able to reach these executives on the telephone, the likelihood of them being able to conduct the interview at that time is low. Moreover, if interviewers ask such people to participate in a survey at an inconvenient time, executives are more likely to refuse completely than to schedule a general or specific callback. Telling these individuals that the purpose of the telephone call is to inform them of the survey and to try to schedule an interview appointment is a much more effective approach. Not only does it address the fact that these are busy people; it also conveys to them the importance of their participation by demonstrating that the interviewer is willing to work around their schedule.

When using specific callbacks and appointments, interviewers must abide by the callback commitments, calling back at the designated date and time. Otherwise, they might decrease the response rate. A missed callback or appointment can reduce the credibility of the survey and the research firm, and can jeopardize the respondent's willingness to participate.

2.1.3 Ensure an adequate number of callbacks.

The number of contacts attempted per potential respondent improves response rates. The rationale is simple: the greater the number of calls, the greater the likelihood of contact. The actual number of callbacks will vary depending on the research design, budget and length of field period available, but numerous attempts to contact an individual or household will reduce non-response.

Using callbacks well is one of the most common and effective ways to increase response rates. **Under the current Standing Offer of the Government of Canada, eight callbacks are required before a sample record is retired.**¹⁵ This number includes callbacks made to establish initial contact with the potential respondent (for instance, when there was no answer or the line was busy on previous calls) *and* callbacks made after contact has been established (for instance, when the potential respondent asked for a callback at a more convenient time, or when the selected respondent was not home). Increasing the number of callbacks up to a certain point—depending on the audience, time of year and other factors—can improve response rates. In addition, varying the times of day and days of the week when the callbacks happen can make them more effective, because it increases the chances of making contact with people when they are at home or in their office.

2.1.4 Schedule extra callbacks to households with an initial language barrier.

Scheduling extra callbacks to a household with an initial language barrier may yield a completed interview. Depending on the target population and the survey topic, this practice may help maximize response rates. In the call history, the interviewer enters a language barrier code to a record when the person who answers the telephone does not understand the interviewer in either official language. If the target population is 18- to 30-year-olds, for example, it might be a

15 Cunningham et al. (2003) found that the majority of completed interviews, refusals and ineligible cases are established by the sixth or seventh call attempt.

good idea to call back records with a language barrier code. A young person who does not face a language barrier may live in the household. By calling back at a different time of day or day of the week, the interviewer may reach the eligible respondent and thus increase response rates.

2.1.5 Leave messages, for some studies.

Interviewers can leave messages for potential respondents, either to inform them of the survey or to invite them to call back for an interview. After a specific number of callback attempts that result in non-contact (that is, there is no answer, the line is busy or an answering machine responds), it may be useful to leave a message informing potential respondents that a Government of Canada telephone survey is being conducted and that an interviewer will call back at a later time or date. If using this tactic, draft a standard message for interviewers to help ensure they convey the appropriate information to each potential respondent.

As a general rule, it is not effective to leave voice messages for telephone surveys of the general public, inviting potential respondents to call back to be interviewed (Sangster, 2003). Not surprisingly, few call back. However, this approach can work for some studies of stakeholder groups, where the potential respondents are motivated to participate in the survey.

2.1.6 Provide a toll-free number for studies with hard-to-reach respondents.

The number of callback attempts can be expected to improve the response rate for a study (see BP 2.1.3). However, for some difficult-to-reach audiences (such as transportation workers, who are rarely in their office), simply increasing the number of contact attempts likely will *not* help improve the response rate significantly. In such cases, setting up a toll-free telephone during the study will allow potential respondents to call the data collection firm at a time that is convenient for them. The toll-free line could be linked directly to the call centre supervisor, who could route the call to an interviewer working on the study. This technique is useful when potential respondents have a vested interest in participating in the survey, such as a monetary or other incentive, or an interest in the topic.

2.2 Take steps to minimize refusals and terminations

Rationale

A well-designed questionnaire with an effective introduction is only part of the equation. Effective interviewers are a critical component of a high-quality telephone survey. No matter how good the research instruments are, they must be in the hands of a capable, well-trained interviewer with a professional telephone manner, who is skilled at encouraging participation and preventing early terminations.

Best Practices

2.2.1 Ensure use of well-trained, effective interviewers.

Telephone interviewers need to be well trained in order to encourage people to participate in surveys and to collect data accurately. They should be professional and friendly, and should sound mature, when they speak on the telephone. This is critical to the success of any of POR telephone survey. To ensure that the data collection firm has well-trained staff, look for field suppliers that offer interviewers an acceptable industry training program. The program should train interviewers to do the following:

- introduce themselves to potential respondents;
- encourage participation appropriately, a task that includes dealing with reluctant respondents;
- use voice intonation to sound more professional, confident and assertive;
- avoid refusals by using techniques, strategies and phrases to foster dialogue with respondents, in order to understand why they are “not interested” and explore ways to gain their cooperation;
- read questions as worded and record responses accurately;
- record open-ended responses verbatim;
- probe for details and clarification effectively;
- avoid leading respondents to answers;
- accurately code the results of calls; and
- explain how the research firm obtained a respondent’s name and telephone number, and why he or she is being included in the study.

Interviewers should be briefed for all telephone surveys, through both verbal briefings and, ideally, briefing notes. These briefings are project specific and differ from the general training interviewers receive. The briefings should include background information on the topic or program that is the subject of the survey; any special challenges the researchers anticipate; information on the target audience, if relevant; and related issues. If the questionnaire is complex or requires specialized knowledge, interviewers should receive additional instructions and

information to help them administer it. Not only will such briefings help ensure data accuracy; they can also help maximize response rates. If the interviewer is skilled at moving through the questionnaire, respondent terminations will be minimized, since the burden on the respondent will be lessened.

For smaller samples of special-audience research, it is usually advisable to use a research supplier's best interviewers. Mature, experienced interviewers are better able to handle studies where the target population is elite or difficult to reach—for instance, physicians or executives—and where the survey topic is sensitive. Having fewer, but more experienced, interviewers can also help maximize the response rate, because the interviewers will become very familiar with the study—something that is particularly important for senior or elite audiences—and will be focused on completing interviews.

2.2.2 Request monitoring of data collection at all times.

Look for a field supplier that monitors at least a portion of the interviews throughout the data collection. Monitoring will help ensure the quality of the interviews throughout the field period by keeping interviewers striving for top performance. In addition, interviewers' interaction with potential respondents can affect the response rate. For example, not tailoring the initial script based on cues from the potential respondent might result in a refusal rather than a completed interview. Monitoring data collection can help determine under which circumstances interviewer behaviour influences non-response and may affect non-response error (Lavrakas, 1993). Field suppliers that are corporate members of MRIA are required under the MRIA code of conduct to validate at least 10% of interviews for each project, via onsite or remote call monitoring, unless the client specifies otherwise.¹⁶

2.2.3 Monitor reasons for non-response during data collection.

It is useful to monitor the progress of the fieldwork. Not only will this approach help keep the study on target and on budget; reviewing the reasons for non-response can also help the research supplier make any adjustments necessary to maximize response rates. If the non-response rate is high due to non-contacts, the research supplier could ask interviewers to conduct callbacks at different times and on different days of the week, in an attempt to reach more potential respondents. Conversely, if the call disposition reveals that a high non-response rate is due to refusals, the research supplier could try to ensure that only interviewers with the best interview completion rates are working on the survey.

2.2.4 Monitor non-response levels among different segments of the target population.

In addition to monitoring overall response rates during the fieldwork, it can be important to review the response rates for specific segments of the target population. High response rates do not necessarily reduce or eliminate non-response error. While a study may achieve a high response rate, the results may not be confidently generalized to the full target population if non-

¹⁶ Burks et al. (2006) provides a good discussion of the range of practices survey organizations use to monitor interviewing.

respondents differ substantively from respondents. Consider the example of a survey of self-employed individuals. To complete the interviews quickly, regional, age or gender distribution might be sacrificed. More careful, slower fieldwork would strive to conduct interviews in the appropriate proportions for key characteristics.

If working the survey sample only results in more responses from one segment of the target population and not others, a high response rate will be achieved at the possible expense of quality data. Low response rates among sub-groups of the target population might introduce non-response bias. If non-response is expected to be higher among certain sub-groups, monitor these elements of the sample closely, in addition to overall non-response call dispositions (Statistics Canada, 2003).

2.2.5 Attempt refusal conversions.

Refusal conversions are an essential aspect of data collection for survey organizations. They involve attempting to convert someone who has already said that he or she does not want to take part in a survey, or who has terminated an interview, into a respondent. Senior, experienced interviewers call back people who initially refused to be interviewed

to try to persuade them to participate. Typically, the interviewer uses a modified introduction that acknowledges the potential respondent's earlier reluctance to take part in an interview. The time and day of refusal conversion callbacks vary. In some cases, it can be useful to send a letter to non-respondents, asking them to reconsider. This approach can be less intrusive than a telephone call, but it still requires the careful use of language. It might not be possible to send letters, depending on the length of the data collection period and the availability of mailing addresses.

If handled with care, refusal conversions do increase telephone survey response rates.¹⁷ Not only can this technique turn a refusal into a completed interview, but it may also yield new potential respondents: another call to a household after an initial refusal might reach someone other than the person who refused and result in a completed interview with that person. Depending on the department and agency sponsoring the POR survey, and the study topic, there may be heightened sensitivity around the practice of refusal conversions.

Refusal conversions

- ✓ Senior interviewers
- ✓ Specialized training
- ✓ Secondary intro

17 See, for example, Triplett, T., J. Scheib and J. Blair (2001). Moreover, Curtin et al. (2002) found that the proportion of refusal conversions in the final sample of a national telephone survey increased from 7.8% in 1979 to 15.1% in 2002. Together with other efforts, such as callbacks, refusal conversions were required to maintain consistently high response rates over time.

Stage 3: Analysis

3.0 Address survey non-response

Rationale

Response rates are best addressed during the design and data collection phases of research. During analysis, however, organizations can follow a number of best practices to help account for non-response and guard against non-response bias. These efforts will not improve the response rate per se, but they will help compensate for non-response and increase confidence in data quality.

Best Practices

3.0.1 Compare response rates across sub-groups.

Compute and compare response rates across key sub-groups of the target population. These sub-groups might include age, gender and region, for example, for a survey of the general public. This method does *not* help determine the *extent* of non-response bias, but it can indicate whether there might *be* non-response bias. If the response rates are quite similar across sub-groups, non-response bias—should it exist—will likely have a limited impact on the data. The problem with this approach is that there are other causes of non-response aside from such sub-group variables. In other words, it is unlikely that response propensity is affected only by the sub-group variables (Groves, forthcoming). Comparing these response rates is a good place start, but doing so should *not* take the place of other methods of addressing survey non-response.

3.0.2 Weight survey data, where possible.

Statistical adjustment, or weighting by observable variables, is one of the most common approaches used to address survey non-response (Groves et al., 2001). Weighting the data can help the researcher ensure that the results presented to the reader are representative of the target population, *where it can be assumed that no or little non-response bias exists*. With this method, the provincial, demographic, socio-economic and other descriptive parameters of the survey sample are weighted to account for non-respondents. If, in a survey of the general public, 30% of the responses came from Ontario, weights could be applied so that these cases had the appropriate relative importance—that is, so that they represent 38% of the sample, which is Ontario’s actual share of Canada’s population. A description of the weighting procedures and source of the weights should be included in the methodological section of the report to help ensure that the survey can be replicated in the future.

Weighting is less effective in addressing bias that can result from non-response. Bias occurs when survey non-response results in differences between respondents and non-respondents. To correct for non-response bias, researchers need to understand what factors affect the likelihood of an individual agreeing to an interview.¹⁸ Such understanding is important because systemic differences between respondents and non-respondents may extend beyond observable variables—such as gender, income and region—which are adjusted by weighting based on available demographic data.

Statistics Canada demographic data on factors such as region, education, income, gender, age and language are often used for weighting purposes. Statistics Canada demographic data can become dated, so it is a good idea to find out whether other sources of more current demographic data are available for weighting purposes. Regardless of the source, ensure the use of *valid external weights*. If the weights are derived from an unreliable source, weighting the data will not improve survey data quality.

3.0.3 Compare respondents and non-respondents.

Where possible, conduct non-response analyses after data collection, to compare the characteristics of respondents and non-respondents. Such a comparison will enable organizations to assess how respondents differ from non-respondents, based on demographic or other known variables. Any difference between the two is an indication of non-response bias. Practical ways to compare the characteristics of respondents and non-respondents include the following.

- **Use external sources:** External data sources may contain variables similar to key survey variables. The external data source is the benchmark against which the survey results can be compared for variations. When selecting a comparable survey, look for one with *very* high response rates to decrease the likelihood that the comparison source will contain non-response error. For example, if the survey measures Internet use, Statistics Canada's Household Internet Use Survey might be a useful comparison source. Any difference related to frequency of Internet use between the survey and the other data source provides an estimate of overall bias.

Non-response bias is specific to each survey. It is important, then, to try to assess non-response bias on key survey variables, not just demographics available through Census data. As discussed in section 3.0.2, even if the sample composition closely matches the demographic distribution of Canadians, there may be bias on other substantive, topic-related survey variables.

18 See Wang (2006) and Peress (2006) for promising research related to response propensity and non-response bias that warrants further investigation.

- **Use available variables:** Rather than looking for an external source to compare survey variables to, consider comparing the final sample composition to key characteristics in the sample frame or in a comparable source of administrative data. The difference between the two provides an estimate of non-response bias. For example, departments or agencies undertaking program evaluations or client satisfaction surveys might have administrative data they can use to compare survey respondents and non-respondents directly. If there is no information that can be used to compare respondents and non-respondents, which is quite likely to be the case with a RDD survey of the general public, consider linking the telephone exchanges to postal codes. From the postal codes, socio-demographic information about households in the area can be obtained from sources such as Canada Post’s GeoPost and then used to compare respondents and non-respondents.
- **Observations during data collection:** Consider asking interviewers to make observations about respondents and non-respondents. When these observations correlate with key survey variables, they may reveal non-response bias in survey variables. For instance, when determining why a program contributor might not have applied for program benefits, an organization could ask interviewers to assess the language and comprehension skills of all potential respondents contacted, using a short assessment tool created for that purpose. The organization could look at responses from people with limited abilities to converse in English or French, and compare the proportion of respondents in that group to the proportion of non-respondents in that group. This exercise could help the organization determine whether the survey findings understate the impact of language barriers—in other words, whether people with language barriers are under-represented in the final sample pool.
- **Seed the sample:** Find a source with highly reliable characteristics related to key survey variables, and include some units with and without this characteristic in the sample. At the end of data collection, compute the response rates by characteristic—the seeded cases versus the main sample—to estimate response propensity. If the rates are similar, estimates correlated with the characteristic have small biases.

Depending on the amount and nature of the information known about units in the sample frame, these approaches may be very useful in assessing the reliability of survey data.¹⁹ If there are few differences observed between respondents and non-respondents, the likelihood of biased data resulting from non-response is correspondingly low.

3.0.4 Compare “early” to “later” respondents.

Another way to deal with non-response is to compare responses of “early” and “late” respondents. *Late respondents* are people who did not quickly complete an interview, thus requiring more effort from the interviewer—for example, people who required incentives, multiple callbacks or refusal conversion. They are *not* people who completed an interview toward the end of the data collection period, per se. The rationale for comparing early and late

19 See Groves (forthcoming) for a good discussion of the various methods researchers can use to test for non-response bias.

respondents is the assumption that late respondents might approximate non-respondents to some degree, because if the interviewer had not made extra efforts to reach these people, they would have been non-respondents, too. If a comparison of these two groups reveals no statistical differences across core measures, then the survey data can be generalized with more confidence. The weakness of this method is that it assumes non-respondents are similar to those respondents who are difficult to reach. Since this assumption may not apply universally, this technique offers imprecise information about the existence of non-response bias.²⁰

3.0.5 Conduct non-respondent follow-ups.

A key to dealing with non-response is knowing the extent to which it might affect the data by introducing bias. One method used to quantify the difference between respondents and non-respondents is to survey a sub-sample of non-respondents when the fieldwork is complete. The responses from this sub-group can be compared to those of the respondent group. Typically, the full questionnaire is not used as the research instrument. Instead, a shorter version of the original questionnaire is administered, one that includes critical variables of interest to the department or agency. If no statistical differences are observed between the respondents and the sub-sample of non-respondents across these key survey measures, the overall results can more confidently be generalized to the target population.

The drawback of a non-respondent follow-up is that it can be costly and it requires time. The researcher, or the department or agency commissioning the telephone survey, might not have the time or the financial resources to do this type of follow-up. It stands to reason that if non-respondents were difficult to reach or reluctant during the fieldwork, they will be equally difficult to reach or reluctant during a follow-up exercise. Such follow-ups involve callbacks and/or a change of data collection mode, and they may require the use of incentives or elite interviewers to persuade non-respondents to complete an interview. Organizations need to decide whether the level of survey non-response is likely to lead to non-response bias. If there is a reasonable concern that non-respondents may be *systematically* different from respondents, surveying a sub-sample of non-respondents may be necessary or valuable.

20 Teitler, Reichman and Sprachman (2003) found that increasing efforts to reach difficult-to-contact respondents had little effect on reducing potential non-response error because these respondents were poor proxies for non-respondents. As well, other studies have found that late respondents do not differ enough from early respondents to affect survey results (Gentry, 2006; Curtin et al., 2000). This is not to discount this technique altogether, but rather to suggest that it does not appear to be a strong means of determining whether non-response bias exists in survey data.

Stage 4: Reporting

4.0 Document the response rate

Rationale

To address the issue of response rates in a comprehensive way, measure and record them consistently over time. While response rates are best addressed during the design and data collection phases of the study, properly documenting them will help organizations track them over time.

Best Practices

4.0.1 Ensure the research supplier provides the record of calls.

After completing the fieldwork for a telephone survey, the research supplier should provide the survey's sponsor with the record of calls. This record of calls, known as the call disposition, allows organizations to calculate the refusal rate, the response rate and the incidence rate for the survey (see BP 2.0.3). Beyond providing input data for these calculations, the record of calls offers valuable insight into the amount of effort required to reach respondents, as well as the quality of the sample frame.

4.0.2 Calculate the response rate using an approved method.

As a best practice, organizations should collect and report response rates for all Government of Canada telephone surveys. Ask the research supplier to use the standard MRIA approach to calculating response rates, endorsed by Statistics Canada (see Introduction). While reporting response rates will not affect the current study, doing so will ensure that response rates can be monitored over time and across different surveys. Monitoring response rates, including refusal and contact rates, will help survey sponsors and research suppliers develop effective strategies to maximize respondent cooperation.

4.0.3 Ensure the response rate is recorded in the final report.

As a best practice, the methodology section of final reports for telephone surveys should include the response rate and describe how it was calculated. The only way to effectively track response rates over time is to ensure they are reported consistently. This information is now routinely included in reports for telephone surveys commissioned by the Government of Canada. Dealing with response rates, and their decline, requires trackable information that can be periodically assessed to provide direction for government POR.

In addition, it may be desirable to note in the report the response rate for each sub-group and call-back attempt. The former provides some indication of data reliability, and the latter offers insight into the performance of the sample frame, which can be valuable, especially for tracking studies.

Conclusion

This set of best practices was developed as a reference for Government of Canada POR telephone surveys. To this end, we hope that the document provides useful strategies to help ensure that each survey achieves the maximum response rate possible. For more detailed information on the topics covered in the best practices, we invite readers to consult the bibliography on the following pages.

Keep the following in mind when using the best practices.

- Not all best practices will apply to all telephone surveys.
- Emphasize design and data collection features to maximize response rates.
- Some best practices will have a greater impact on response rates than others. Length of time in field is particularly crucial.
- Adopting as many best practices as possible when doing a study can be expected to improve response rates.
- Not incorporating the best practices appropriate to a study may decrease response rates.

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