



# Research Overview: Telephone versus Online Research – Advantages and Pitfalls

## *Key Issues and Considerations for Designing and Managing Primary Research Data Collection*

### SUMMARY

One of the fundamental questions to be answered when designing a research project is the data collection methodology that will be employed. Two specific methods – telephone surveys and Internet surveys – continue to be utilized most often, each offering a set of unique advantages and challenges. Telephone surveys have, in the past, been the method used most by research companies based on positive response rates and broad access to most U.S. households (90%+ of all households having a landline telephone). Now, with the continuing evolution of online surveys and the increasing level of Internet usage, marketers and researchers must consider the pros and cons of each method carefully prior to commencing a research project.

This overview discusses a variety of issues and considerations related to the strengths and weaknesses of both telephone and online survey research. Ideally, this information will provide valuable direction for firms in the initial stages of developing or reviewing their approach to this area of research.

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# Research Overview: Telephone Versus Online Research

## *Key Issues and Considerations for Designing and Managing Primary Research Data Collection*

### **BACKGROUND**

One of the most important issues for researchers when developing a study is the selection of an appropriate data collection technique. Key questions faced by researchers at this point in the project life cycle include:

- √ What is the most direct and cost effective means of reaching the targeted sample segment?
- √ What methodology will yield the most representative and projectable sample for the research project?

One of the historic strengths of telephone surveys has been the ability to generate results that are representative of, and projectable to, the greater U.S. population. With more than 90% of households having a landline telephone, these surveys have provided researchers with a direct and “socially acceptable” means of contacting and recruiting survey participants. In recent years, however, several trends have emerged that have diminished the advantages of telephone surveys and compelled researchers to seek out new alternatives for data collection. These include:

- Declining participation rates for telephone surveys, which result in higher costs and diminished reliability;
- A growing dependence on wireless telephones (some estimates put “cellular only” households at more than 10% of the U.S. population); and
- A decreased receptiveness to unsolicited contacts at home (e.g., the growth of the “Do Not Call” list).

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Growing concerns with the projectability of telephone survey research have coincided with the rampant growth of online or Internet research. Online surveys typically utilize groups of previously-recruited consumers – or *panels* – as a means of creating an accessible sample for fielding the surveys. Given the nature of the medium, online surveys can offer certain advantages over more traditional approaches, including cost-effectiveness, time in field, and questionnaire format and complexity. At the same time, the publicly-held view of Internet research as “cheaper and faster” brings with it a unique set of challenges that must be taken into consideration, such as:


- How appropriate is an online survey given the characteristics of our target segment? For example, do they have access to the Internet to an extent that will support survey research?
- What is the nature of the available Internet survey panels; for example, in terms of geographic coverage and demographic characteristics?
- How is the Internet panel managed in terms of recruitment, turnover, incentives, and limits on ongoing participation over time?

## **RANDOMNESS AND PROJECTABILITY**

A key consideration of any primary research study has to do with the degree to which the results of the sample survey are projectable to the universe population of constituents that the sample is designed to represent. Toward this end, a truly random – and therefore projectable – sample must meet two key criteria:

- √ All universe population members must have an equal chance of being contacted for the survey; and
- √ All universe population members must have a known (measurable) chance of being contacted for the survey.

Certainly, any primary research project likely falls somewhere short of the ideal relative to these definitions. Still the respective strengths and weaknesses of telephone versus online research must be taken into account when selecting the appropriate methodology for any given study.



One of the greatest concerns with online research involves whether the results are truly representative of the U.S. population, i.e., whether the survey can be administered in a truly “random” fashion. In this context it is important to recognize that, in the instance of Internet panels, online studies are reflective only of the panel from which the sample is drawn and not necessarily of the entire population of online consumers in the U.S.

A recent study by MRWeb.com (March 2007) reported that 30% of consumers in the U.S. are not online and of those, 44% are not interested in anything on the Internet. Moreover, reviews of online research policies and practices have determined that a large proportion of ALL online studies are completed in the U.S. are, in fact, completed by a very small minority of consumers relative to the total population.

Caution must be exercised when considering the validity of Internet panels that claim high levels of representation simply because 70% of the U.S. population has access to the Internet. With panel sizes typically ranging from 3 million to 5 million members, panel samples are representative only of the panels from which they are selected.

That is not to say that online research is invalid, unreliable or not projectable; rather, caution must be taken when conducting online studies. If the sample is to be representative of the U.S. population, then measures need to be taken to reflect the offline population such as weighting on the backend or balancing the sample before fieldwork.

Additionally, in order to be truly random as stated above, each panel member must have an equal and known chance of participating in any given study. This requires the careful eye of the online sample management team.

The amount of time spent in data collection is inversely related to the reliability of a sample. Online projects that complete thousands of interviews in a single weekend suffer from greater non-response bias than is evident in any telephone survey. While the same can be said for telephone surveys that do not effectively manage the available sample, the issue seems to be currently most prevalent with regard to online research.

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As a means of managing these issues, an online study should be left “open” long enough to include those who are not online as often the chance to receive the invitation and participate in the study. The incidence of “professional respondents” – e.g., very frequent survey takers – also needs to be carefully controlled as people become adept at knowing how to qualify for studies and sometimes fabricate answers. Again, managing the online sample to ensure panel members are invited randomly is critical, as is controlling the number of surveys panel members can participate in during a certain period of time.

## TELEPHONE VS. ONLINE RESEARCH

Like all research studies, the approach and methodology taken must fit the objectives of the research. Neither telephone surveys nor online surveys are appropriate for all research projects; therefore, it is important for researchers to consider the strengths and weaknesses of each approach and choose the method that best suits the study objectives.

### *Telephone:*

Until recently, telephone surveys have been the most prevalent means by which to collect consumer data in the U.S. Telephone surveys surpassed the earlier methods of time consuming mail surveys or costly face to face surveys by providing faster and more effective data collection without sacrificing representativeness.

Several key advantages remain for conducting telephone surveys, including:

- **Random Digit Dialing** techniques ensure a randomly chosen sample.
- The sample can be **representative** of the U.S. population with 90% of households having a landline phone.
- Interviewing **difficult to reach respondents**. Telephone interviews can be more productive and yield a better response rate.
- **Capturing open-ended responses**. A live interviewer can thoroughly probe the respondent and gain a better understanding behind why the respondent answered the way they did.

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There are, however, several potential disadvantages that have risen in recent years that impact the value and appropriateness of telephone interviewing, including:

- The creation of the do-not-call list; although not directly affecting market research firms, does indicate the direction in which **consumers are moving to restrict unsolicited calls**.
- More consumers are compelled to have a **non-listed number** or **‘cell only’ number** which further restricts undesired calls.
- **Costs can be high** when specific populations are targeted or the incidence is low – like finding a needle in a haystack.
- **Time in field can also be longer**, in that fieldwork cannot be conducted as quickly when the rules of randomness are applied (such as a minimum number of callbacks made to reach each respondent).

***Online:***

Online research has been used increasingly in the U.S. and worldwide for more than 10 years, with continuous progress made in terms of both sample availability and survey technology.

Some advantages to online research include the following:

- **More sophisticated questionnaires.** 3D images or videos can be shown online and complex rotations can be programmed for difficult to administer tasks such as choice modeling exercises.
- **Speed.** Data collection can be shortened as thousands of email invitations can be delivered at one time.
- **Costs.** Costs can be less than telephone interviews.
- **Reduction of “incidence.”** Because many panels include specific demographic and behavioral characteristics of their members, the concept of “random incidence” is avoided based on the ability to target specific panel members who are known to possess the required characteristics. When working with online panels, therefore, researchers are able to avoid some of the pitfalls associated with contacting lower-incidence populations by targeting specific respondents and going “directly to the source.” It should be noted, however, that some panel providers may still argue issues of incidence (and related costs), even though they are able to specifically target panel members who are known to have the specific characteristics sought by the client.

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At the same time, there are also disadvantages associated with using online surveys, including:

- Truly **random and representative samples** are difficult to achieve as noted previously.
- **Speed** of data collection is inversely related to the quality of the data, again, as noted previously. If sample management teams are allowed to send out as many email invitations as desired to fill the quotas, this also allows only those online at that time to complete the survey. Slow starts need to be employed to ensure some randomness.
- **Costs** can also be more than traditional telephone interviews if the incidence of the targeted population is low. For some groups, there is little chance the targeted population has email addresses, thus requiring a hybrid approach such as a combined telephone recruit to a web survey. In other instances, a significant incentive is required to encourage specialized populations to participate (such as physicians).

## DIRECT COMPARISONS

A point of comparison was made using a hypothetical study that could be conducted using either an online panel or by random digit dialing on the telephone. The study was outlined as being a general population study of respondents aged 18 – 64 years of age, with a mix of gender and a qualified incidence rate of 85%. The questionnaire was assumed to be 15 minutes in length, with a targeted sample size of 500 respondents.

The two different methodologies produced the following comparison points:

	<b>Phone</b>	<b>Online</b>
<b>Sample Management</b>	Sample is purchased at approximately 15 times the total number of desired completes. Replicates are created, and each number is called a minimum of 6 times before considered unusable.	Panel is targeted at a level deemed necessary to achieve the necessary number of completes. Ideally, a “slow start” is utilized to test incidence and questionnaire length.
<b>CPI (cost per interview)</b>	20% <b>higher</b> than online costs.	20% <b>lower</b> than phone costs.
<b>Sample Sources</b>	Random Digit Dialing of population with home phones (access to over 90% of total population).	Online panel members recruited via email, websites, pop-ups, etc. Consists of Internet panel members who agree to participate in ongoing research projects. Typical panel sizes range from 3 – 5 million. Represents less than 2 percent of total U.S. population.
<b>Timing</b>	7 to 10 days	3 to 4 days
<b>Response Rate</b>	Average of 20% - 30% among respondents contacted.	Average of 5% - 10% among respondents invited to the survey.
<b>Geographic distribution</b>	Nationwide, including the ability to target specific states, cities, zip codes, and so on.	Nationwide and state-specific. Some ability to target at the market level. (some areas are under represented due to lower levels of panel sample availability)

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## IN SUMMARY

In summary, any primary research project will benefit from diligent consideration of the advantages and disadvantages associated with various alternative data collection methodologies. While the rampant growth of Internet research continues to offer marketers new and different options, the disadvantages of Internet research from the standpoint of projectability and representation must be considered in relation to the potential and relative cost and timing benefits.

We welcome any input or reactions to this white paper, and would appreciate any opportunity to discuss your specific needs for research in greater detail.

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