

**AN OVERVIEW OF
CURRENT RESEARCH INDUSTRY ISSUES
FOR
ENERGY EVALUATORS AND MARKET RESEARCHERS**

*Carla Jackson
Vice President of Energy Research
Schulman, Ronca, and Bucuvalas, Inc. (SRBI)*

A significant portion of energy program evaluation and market research involves the utilization of survey research, which is the systematic collection of data from respondents using mail, telephone, or online technologies. Energy evaluators often conduct research with program administrators, participants, and non-participants; energy market researchers focus their research efforts on current and prospective consumer and business customers across a broad range of topics including customer satisfaction, new products and services, billing, company communications, and a host of other topics.

A number of recent developments in the research industry have important implications for energy evaluation and market research, including the national Do Not Call list; the proliferation of cellular telephones; the growth of online survey research; respondent selection within a contacted household; and the growth of Spanish-language questionnaire versions. Each of these issues will be discussed in turn, with specific implications for energy researchers. Most of this discussion relates to consumer research, although selected issues related to research with business customers are also mentioned.

The National Do Not Call List

Many energy researchers are familiar with the national “Do Not Call” (DNC) list from either personal experience or media reports. Over the years, many states developed their own DNC lists which prohibited telemarketers from calling households which registered their home or wireless telephone numbers with the state. Some states (such as Florida) charged a nominal fee for this service, while it was free in other states.

Beginning on October 1, 2003, however, a national DNC list was created, with administration provided by the Federal Trade Commission (FTC). As of June 18, 2004, approximately 62 million households listed their home or wireless telephone numbers on this list. Listing is free for households, who can register either online or by telephone. Overall, 83 percent of the DNC list numbers came from direct consumer registration and the remaining percentage was transferred from existing state-level registries. The program subjects telemarketers to fines of up to \$11,000 for calling a number on the DNC list. The FTC reports that the vast majority of DNC households have reported fewer telemarketing calls since joining the list. (Federal Trade Commission)

The legislation creating the DNC has survived a number of legal challenges from the telemarketing industry. In October 2004, the Supreme Court let stand a lower-court ruling that telemarketers' rights to free speech were not violated by the DNC list. (*American Teleservices Association v. FTC*, 03-1552) Earlier, some telemarketing industry groups had dropped their opposition to the law after the failure of previous legal changes.

It is important to understand that survey research is not subject to the DNC, nor are companies with which a householder has an existing relationship, charitable organizations, or political pollsters. However, the DNC list has created challenges for the survey research industry because some householders on the list do not understand the difference between telemarketing and legitimate survey research. For example, a CMOR-sponsored mail survey of 2,000 U.S. adults found that one in five adults did not distinguish between telemarketing and legitimate survey research. (Lavrakas and Shepard) In addition, the practice of "sugging" (sales under the guise of survey research) has further confused the public about the difference between telemarketing and survey research.

Importantly, all interviewers for energy research projects should be prepared to explain the difference between telemarketing and survey research if asked by respondents. Generally, this objection occurs at the point of the survey introduction. When a respondent objects to a research call because s/he believes it is telemarketing, it is important to explain briefly and understandably the difference between telemarketing and survey research. In the event that the respondent continues to object after this brief description, it is generally best to thank him or her for his or her time and terminate the call, since further discussion is likely to prove unproductive. Above all, it is important not to alienate potential respondents from the research process.

There has been some speculation in the survey research industry that the DNC list will either diminish or improve response to legitimate surveys. In a "large" survey conducted by Nielsen, 31 percent of households on the DNC list refused to participate, compared with 34 percent of those not on the DNC list. (Lavrakas) In contrast, a survey reported by Marketing Systems Group in early 2004 found that 59 percent of DNC list households refused to complete a telephone survey, compared with 56 percent of those not on the DNC list. (Marketing Systems Group) It can be expected that additional research will be conducted on differential response rates for DNC list and non-DNC list households in the future.

It is also important to understand that there are some significant demographic differences between households on and not on the DNC list, as shown in Table 1. Those on the list tend to have higher incomes, own their home, and live in single-family structures, compared with those not on the list. Thirty-five percent are college graduates, compared with 22 percent of those not on the list. Those on the DNC list tend to be older (average age of 50) than those not on the list (average age of 45).

Table 1 Demographic Characteristics of DNC and Non-DNC Households		
Demographic Characteristics	On National DNC List?	
	Yes	No
Own home	84%	66%
Single-family home	80%	69%
Married	63%	49%
Household Income > \$35,000	69%	49%
Race: White, non-Hispanic	84%	70%
College Graduate	35%	22%
Average age	50	45
Source: Marketing Systems Group		

A few survey researchers are currently “scrubbing” lists or random digit samples to remove numbers of households on the DNC list, with the expectation that this will improve response rates or due to a lack of understanding that the DNC does not apply to legitimate survey research. But as previously indicated, there is no conclusive evidence indicating whether DNC list households are more or less likely than non-DNC list households to participate in a sample survey. More importantly, the removal of DNC list households from a survey sample has the potential to create significant response bias, because of the significant difference in the characteristics of DNC and non-DNC list households.

Implications for Energy Research: The DNC list does not apply to legitimate survey research or to companies with whom consumers have an existing relationship. It is possible, but yet unproven, that households on the DNC list may be more likely to participate in legitimate surveys than those not on the DNC list. Importantly, researchers must be prepared to deal with objections about the DNC where respondents are confused about the distinction between telemarketing and survey research.

Cellular Telephone Proliferation

Over the past 30 years, random digit dial (RDD) samples have been the standard and most widely-used approach for conducting telephone surveys with consumer populations. RDD samples are the best method for reaching a random sample of the population since all but a small percentage of households have a telephone (less than two percent are without telephone landlines at any given time). RDD samples normally contain only landline numbers, with cellular phone numbers excluded. Historically, nearly all cellular telephone numbers have been segregated in cell phone exchanges or banks within exchanges, which has facilitated the exclusion of cellular telephones from RDD samples.

However, the identification of cellular telephone exchanges has become problematic with the advent of telephone number portability. In November 2003, households in the 100 largest U. S. metropolitan areas were allowed to keep an existing telephone number when changing service to another carrier, changing from a landline to a cellular telephone, or moving to another area of the county. In May 2004, telephone number portability was expanded to the remainder of the U. S.

In addition, survey research calls to cellular telephones are restricted by both the Federal Communications Commission (FCC) and the Telephone Consumer Protection Act of 1991, which prohibit survey research calls to cellular telephone numbers using “automatic dialing systems”. Having an interviewer manually place a call to a cellular telephone is not currently restricted, but represents a significant burden for survey research organizations which use predictive dialers and other automated dialing software.

The important issues of telephone number portability for survey research are two-fold. First, it is no longer as easy to identify cellular telephones from the exchange. When selecting RDD samples, the numbers may include cellular telephone numbers where numbers were transferred from landlines to wireless telephones. Secondly, telephone exchanges may now include numbers not located in that geography. If an individual with a landline in New York City moves to San Francisco, that person may transfer that number to cellular service with a carrier in California. While some systems have been developed to distinguish cellular telephones, no such system is 100 percent accurate.

In addition to telephone number portability rendering it more difficult to distinguish wireless from landline telephones, another issue facing survey researchers involves households with a cellular telephone but no landline telephone (i.e., “cord-cutters”). One of the difficulties inherent in the measurement of the penetration of cellular-only households is that it must be conducted using an in-person interview. Two efforts to do this have been made by 1) Peter Tuckel and Harry O’Neill, as reported in May 2003 at the annual conference of the American Association for Public Opinion Research, based on a random sample of 2000 respondents interviewed in their homes in February and March 2004, and 2) by the National Center for Health Statistics, based on questions about cellular telephone use from the first nine months of 2003, with data obtained from 27,141 households. Selected results germane to the characteristics of cellular only households are provided in Table 2.

Table 2 Prevalence and Characteristics of Cellular-only Households		
	Tuckel/O'Neill	NCHS
Cellular only households (no landline)	2.5%	3.0%
Male	3.4%	3.4%
18 – 24 year olds	3.5%	6.8%
Renters	3.8%	7.4%
Single	3.8%	6.0%
Income:		
\$10,000 up to \$19,000		6.6%
\$50,000 up to \$75,000	4.1%	

Overall, these data indicate that cellular-only telephone households are most likely to consist of young, single males in rental housing. This might occasion concern in an RDD survey of this particular market segment, but the impact in a RDD survey of the general population would be relatively small. However, the penetration of wireless-only households should be monitored in the future.

Implications for Energy Research: Two important issues regarding cellular telephones should be monitored by energy researchers: the impact of number portability on RDD samples and the potential growth of wireless-only households.

Judicious Use of Online Research

One has only to look around at various research industry conferences to understand the proliferation of online research opportunities. Some existing research organizations have virtually abandoned their telephone centers in favor of online research, while other companies have been established exclusively to conduct online research. Online research is conducted using opt-in panels or current customer lists.

An online approach can prove very useful where virtually all of a population is known to have Internet access. For example, all key account customers are likely to have access to the Internet and can accordingly participate in an online survey, with the invitation to participate issued via mail or email with the appropriate URL and password. Or if the interest is in understanding customer requirements for online bill payment, then an online survey would be an effective means of obtaining information about bill payment and delivery preferences from the online population. Online approaches can also be used for conjoint analysis or supplemental questions as a follow-up to a telephone research project, or to evaluate proposed advertising materials, where the objectives are essentially qualitative in nature. Online panels can also be used to recruit focus group participants, particularly for low-incidence groups, where a relatively large number of people in a given geographic area can be quickly screened.

The problem is that it is difficult to control respondent selection online, particularly for consumer surveys. Is it truly a householder who is also the energy decision-maker or the bill payer in the household, or their teenager who likes to complete online surveys? Also, many online panels are plagued by low panel response rates (often on the order of 11 to 15 percent). And importantly, the online population may differ significantly from those without Internet access, even with demographic adjustment of the sample. Also, the online population differs significantly from the population overall, particularly in terms of age, income, and education. In addition, there are geographic differences in the online population, which ranges from 42 percent in Mississippi to 66 percent in Alaska. (U.S. Department of Commerce) Finally, the tenet of scientific sampling is that every element in the population has a known probability of selection, but this is not necessarily the case with online panels to which Internet-connected respondents can opt in, or even where participation is solicited from current customers with online access.

SRBI recently conducted a proprietary study for a client in which a nationwide online panel was used (n=947) and we also conducted an RDD telephone survey with many of the same questions (n=2000). The online sample was weighted according to population parameters. The disturbing result was that many of the major survey findings differed in the online and telephone surveys, but the variation was random, rather than systematic, so it would be virtually impossible to correct for the differences. The persistence of large, statistically significant differences on many key measures, even after weighting, demonstrates the difference in the telephone and online samples. While the client for this project was outside the energy industry, these results have some potentially disturbing implications for those of us in the energy industry.

Finally, it is important that online research respects the right to respondent privacy. Many Internet studies involve the use of online panels, to which members have explicitly opted-in because they are interested in responding to surveys and for which they usually receive compensation from a reward pool or are entered into a drawing for cash or prizes. In contrast, other Internet research is conducted with current customers who are contacted via mail or email and asked to participate in an online survey. Energy companies should exercise particular care with this latter approach to online research. While it can be argued that there is a substantive pre-existing relationship between customers and their energy provider, generally this does not include explicit approval from a customer to be contacted about an online survey, particularly through use of an email address. The Council of American Survey Research Organizations (CASRO) has developed detailed standards for the protection of online respondent privacy. For example, if potential respondents are solicited to participate in research, they must be offered the opportunity to be removed from any future emails about survey efforts. More information about standards for online research and privacy are available at the CASRO website (www.casro.org).

Implications for Energy Research: Online research can be attractive from the perspectives of cost and timeliness, but it is important to consider whether an online approach is appropriate to achieve research objectives. The online privacy of customers should always be an important consideration in Internet surveys.

Selection of Respondents within Contacted Households

This past presidential election season, there has been considerable debate about the most appropriate respondents to interview for political polling purposes: are they registered voters? Likely voters? Recent voters? While many of the issues around political polling are not relevant to energy research, the issue of selecting the appropriate respondent should resonate with those of us in energy industry research.

For consumer energy research, the appropriate respondent is often the householder who signed up for a new product or service, or participated in an energy company or public benefits program. In a transactional survey about customer service, the appropriate respondent is the person who initiated the transaction with the energy provider. But the appropriate respondent is less clear in other situations: it might be the head of the household, or the energy decision-maker, or the bill payer, depending upon the survey topics.

In research with commercial and industrial customers, the appropriate respondent might be the owner or manager of a small business, or the energy decision-maker in a larger company. But for some issues, such as renewable energy, the appropriate respondent might instead reside in the communications or public relations department of a company, rather than in the energy or facilities management department. For key account research, the name and title of the individual to interview is generally often known in advance, but this is not necessarily the case with small to mid-size business customers.

Generally, energy researchers should pay particular attention to the selection of the appropriate respondent in crafting survey introductions and explanations. Thinking about the respondent and the “hot buttons” to encourage cooperation for that type of respondent can potentially improve survey response rates.

Implications for Energy Research: It is important to determine the most appropriate respondent for a survey, even if this person is not the easiest to reach in the household or business, and then to craft the survey introduction and request for participation in such a way as to encourage survey participation.

Spanish-Language Questionnaires

Currently, many national surveys on a variety of topics include a Spanish-language version. In some instances, respondents are offered the choice of completing an interview in English or Spanish; in others cases, the interviewer makes the determination that a Spanish-language interview is appropriate and then conducts the interview in Spanish, or a Spanish-speaking interviewer re-contacts the household. The growth in Spanish-language questionnaire versions is not surprising, given that current Census Bureau estimates indicate that there are currently 37.4 million Hispanics in the United States representing 13.3 percent of the total population and comprising the country’s largest minority group. Two in five Hispanics are foreign-born. (Ramirez)

According to the 2002 National Survey of Latinos conducted by the Pew Hispanic Center and the Kaiser Family Foundation, Hispanics who were born in the United States or arrived when they were age 10 or younger are more likely to speak English or to be bilingual than those who arrived as adults. Using a series of four questions about the ability to converse and read in English and Spanish, the Pew survey characterized primary language of respondents as English-dominant (25 percent), Spanish-dominant (47 percent), or bilingual (28 percent). (Pew Hispanic Center and the Kaiser Family Foundation)

Studies have indicated that there are significant differences between English and Spanish language Hispanic respondents. Those who request or are administered the Spanish language versions of questionnaires tend to be foreign born, have a relatively short tenure in the United States, are somewhat older, and have lower educational and income levels, compared with the Hispanic population as a whole. In some cases, there are statistically significant differences from Hispanics using English and Spanish versions of a questionnaire. (Dutton)

Translating a questionnaire into Spanish is normally done by a firm specializing in this service to ensure that the translation is done correctly and in accordance with normal standards for questionnaire design. Usually, one person translates the questionnaire and then it is reviewed by another translator, or back-translated. Often as a final check, Spanish-speaking interviewers will review the questionnaire prior to use to ensure that the questionnaire flows conversationally and follows the intent of the English version.

There are several instances in which it may be particularly important to offer a Spanish-language version of a questionnaire to ensure that the experiences and opinions of Spanish-speaking customers are reflected.

- First, the Hispanic population varies widely among energy company service territories, with significantly higher percentages of Hispanics in the West and South than in the Northeast and Midwest. (Pew) Many energy companies in these areas have historically conducted their surveys in both English and Spanish, and others have begun to do so because of significant Hispanic in-migration.
- Second, energy companies may want to consider Spanish versions of their questionnaires for transactional customer satisfaction measurement where Hispanics are not necessarily a large percentage of the overall customer base but represent a significant proportion of requests for new service or other customer contacts.
- Finally, there may be new products and services for which there might be differential levels of interest among English and Spanish-speaking Hispanics. Where it is important to assess the potential market for a new product or service, a small percentage of potential purchasers either way can make a significance difference in deciding whether to proceed with a launch.

The translation of energy-related questionnaires into Spanish (or other languages) may also represent a particular challenge because of the energy jargon that we often use. Care

should be taken with the translation of such words, such as “true-up”, “weatherhead”, and “green/renewable power”. It is important that any translation captures the meaning of these terms.

Implications for Energy Research: Researchers should consider the topic of the information collection and the importance of obtaining feedback from Spanish-speaking customers or potential customers. One rule of thumb might be that if an energy company’s website includes significant portions in Spanish, then it may also be appropriate to be conducting at least some survey research interviews in Spanish. Utilities may also have significant percentages of customers who speak other languages than Spanish and translation into those languages may also be needed. It should be remembered that energy companies should be sensitive to changes which may occur in their customer bases: while a Spanish-language version of a questionnaire may not be currently needed by some energy companies, there can be changes over time which may necessitate questionnaire translations in future research.

Summary

This paper has explored some of the issues currently facing energy evaluators and market researchers, particularly with respect to consumer research. Importantly, this paper suggests that research cannot be conducted in a vacuum but rather must always consider current developments in the industry, whether legislative or technological. One has only to reflect back to the Literary Digest debacle which failed to incorporate a changing technology into conducting survey research. Each of the issues discussed in this paper may have important implications for energy evaluators and researchers.

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