

EFFECTS OF PRECONTACTING ON RESPONSE AND COST IN SELF-ADMINISTERED ESTABLISHMENT SURVEYS

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delivery of the survey instrument, is *precontacting* sampled organizations by telephone.

Introduction

Identifying the most appropriate single respondent, recruiting that person (and any others in the organization who will facilitate survey administration) into the role of committed participant, and sending a questionnaire through the organizational structure to that person are critical tasks in the self-administered establishment survey.

Minimizing the survey error arising from respondent selection, recruitment, and questionnaire delivery tasks depends on a number of factors that researchers have conceptualized in various ways, and which Tomaskovic-Devey, et al. (1994), for example, have summarized into three general areas.

The ideal respondent will have specific *knowledge*, and will occupy an organizational role that grants access to the parts of the organization's "information system" that are relevant to the survey, and will possess the interorganizational contacts to obtain survey information in situations where it is distributed throughout the organization. (Edwards and Cantor, 1991; Gower and Nargundkar, 1991)

The respondent (and any others who act as gatekeepers or facilitators who route the questionnaire to the appropriate place in the organization) must also have an adequate level of *authority* to participate in the survey.

Survey participants must also have adequate *motivation* to do a good job in comprehending the information requests the survey makes, retrieving the necessary information, making the cognitive effort to compose good responses, and actually filling out and returning the survey instrument. Motivation may have a number of elements, including personal interest in the survey subject, perceiving some personal or organizational benefits to responding, the perceived legitimacy of the researcher, and the workload of respondents.

One common technique that many researchers believe will improve respondent selection and recruitment, and

This paper assesses the effects of two variations of precontacting procedures on survey outcomes--response rates, data quality, survey costs, and "targeting accuracy" (the extent to which preselected respondents actually complete the questionnaires). The two procedures manipulate the level of "personalization" in the survey precontact process: one type of precontact merely identifies the best qualified respondent through a referral from any knowledgeable third party in the organization, while the more personalized procedure further attempts to speak directly with that respondent to confirm contact information, alert him or her to the coming questionnaire, and develop a relationship with the respondent that might increase the odds of a proper response.

Background

Precontacting (also referred to as prenotification or prec canvassing) of sampled organizations can be carried out in a number of ways, and for a number of reasons. Typically, precontacting is accomplished by telephone or letter before a mailed paper questionnaire or other self-administered survey instrument is delivered.

This technique has been applied to sample frame prescreening to determine the eligibility of prospective sample elements, and to obtain auxiliary information about organizations that will be used to maintain panel sample frames or to otherwise assist in sample design (Wallace, 1993; Jackson, 1993).

Precontacting has also been used to alert sampled organizations to an upcoming survey, allowing them time to gather records and prepare for the requests made by the questionnaire (Mesenbourg and Ambler, 1993).

An obvious application of precontacting is to aid in selecting specific organizational members as preferred respondents, and to obtain exact location information--mailing addresses, phone numbers, e-mail addresses--for directing subsequent contacts to those individuals. When trained interviewers precontact by phone, a more detailed set of selection procedures and respondent

qualification criteria can be applied than with written instructions on a self-administered questionnaire that indicate who should fill out the questionnaire.

Precontacting can also increase "personalization" of the survey process. Advance letters or personal phone calls from researchers are thought to further the impression of a tailored, personal appeal that Dillman (1978) advises as a method to develop a commitment to reciprocate on the part of respondents. This promotes an overall tone of familiarity through person-to-person contact.

While this type of "person-targeting," which focuses on the use of personal names and titles is typically what is referred to as "personalization" in the literature, a related form of personalization can arise in the respondent selection process: directing a survey questionnaire to the occupant of a specific organizational role or function, even if not by personal name, can be thought of as "role-targeting." A survey request might even be successfully directed to a specific office or department, and not to an individual at all, if the researcher is indifferent between the individual members of the unit. Person- and role-targeting often go together, but there may be cases in which these two dimensions of personalization are inversely related. For example, a survey package might be personalized with a person's complete name, but that person might have been selected generically as the proprietor or president/CEO of each sampled organization. On the other hand, a highly specific functional role ("comptroller"), might be used without referring to the proper name of the occupant of that role.

Much of the literature on precontacting arises from research in personal or household surveys. The general consensus is that precontacting is usually beneficial to some extent in terms of increasing response rates and perhaps data quality (Clark et al., 1993; Dillman, et al., 1993; Fox et al., 1988; Yu and Cooper, 1983).

There is less research on the effects of precontacting in establishment surveys. To the extent that precontacting is practiced to obtain the benefits of personalization (in terms of fostering a personal appeal and "person-targeting"), a plurality of the relevant establishment survey studies suggest that personalization helps, although some papers report mixed or negative results to personalization (Ramirez, 1996). Two papers, however, make specific statements about issues of personalization and precontacting in mail surveys that this paper can attempt to expand upon.

Moore and Baxter (1993) stated that mailing a questionnaire with a contact name (increased personalization) has mixed results over simply sending them generically to an office or a title--response rates are actually lower for some businesses (larger organizations, in particular) when surveys are addressed with proper names than when they are not. Having a contact name appeared to have had a positive effect on response rates among small businesses, though. This would suggest that higher degrees of personalization (using proper names over generic addressing, and speaking directly with respondents over simply learning the identity of the respondent from another organizational source) may not be worth the extra costs (interviewer and respondent time) most likely incurred.

Van Liere, et al. (1991) concluded that a telephone precontact resulted in higher overall mail survey response rates than only an advance letter and no telephone precontact. In a conclusion analogous to that of Moore and Baxter, however, they found that there was no additional benefit to personally precontacting the actual respondent by phone over simply identifying the name of that person.

In addition to the question of whether personalization in precontacting increases response rates, it also remains to be seen what kind of effect the manipulation of precontacting procedures has on "targeting accuracy." Ramirez (1996) indicated that respondent substitution occurred in a large percentage of cases in several organizational surveys. While it is not clear whether it is inherently good or bad when someone other than the preselected addressee completes a self-administered questionnaire, from an operational perspective the substitution of an unknown respondent represents the introduction of uncontrolled variability in the survey process. This parallels the situation when the person who answers the telephone in a household survey self-selects as the respondent, regardless of the outcome of any randomized respondent selection technique the researcher may have employed.

The question of whether substitution is harmful is further muddied in establishment surveys because of the frequent involvement of gatekeepers and facilitators. In many cases, it may be appropriate for the researcher to identify, recruit, and deliver survey instruments to an organizational member who is acknowledged not to be the ultimate respondent(s). Contrary to their negative reputations as gatekeepers who deny the researcher access, secretaries and assistants may be more accessible than the actual respondent, know that person's schedule, and be able to organize a proper response.

Sometimes the intervention of a facilitator is beneficial. The facilitator may be someone with the knowledge to direct questionnaires to multiple respondents as necessary, and the authority to authorize a response or direct subordinates to cooperate. In the heavily regulated banking industry, for example, government "compliance officers" are common, and have the authority and experience to deal with outside requests for information.

Also, when several different sample elements share the same reporting unit, such as individual establishments under the control of a single parent entity, a gatekeeper or facilitator can coordinate individual responses or disaggregate combined enterprise-level results onto separate questionnaires for different sample units.

The interaction of personalization and precontacting may have complex effects on survey outcomes, particularly response rate, targeting accuracy, and overall data quality. The implications that Van Lier's and Moore and Baxter's findings have for personalized precontacting versus simple respondent identification are explored here, and the phenomenon of respondent substitution is further examined.

Research Design

The Survey

The U.S. GAO conducted a mail questionnaire survey of U.S. banks and thrifts in February and March of 1997. The purpose of the survey was to make population estimates about the nature and extent of depository institutions' operation of automated teller machines (ATMs). A probability sample of 246 institutions, stratified by asset size, was drawn from a comprehensive register of the approximately 12,000 chartered banks and thrifts operating in the U.S. as of September, 1996.

Interviewers made precontact telephone calls to sampled institutions during a one week period, following standardized protocols to determine 1) whether or not the institution was an active member of the population and still eligible for the survey, 2) whether or not the bank currently operated any ATMs (a negative answer constituted a complete response, and no further contact was required), and if so, 3) the identity of the best qualified respondent, and finally 4) sufficient contact information to allow mailing of a questionnaire directly to that person or to a third party who was serving as a facilitator.

Of the initial sample of 246, 30 were disposed of during the precontact phase due to ineligibility, refusal, or lack of ATMs. The remaining 216 were sent mail questionnaires. At the end of the 5 week field period, after no additional replacement questionnaire mailings, but intensive telephone followup with nonrespondents, 209 useable responses had been received from both phases, for an overall survey response rate of 87%. This paper, however, focuses on the dispositions of the 216 organizations that had been precontacted, were believed to operate at least one ATM, and were therefore sent mail surveys. Of these 216 elements, 187 or 87% were classified as respondents.

Operationalization of the Personalized Precontacting Treatment

During the precontact, interviewers recorded on screening forms whether or not they personally spoke to or left a voicemail message for the best qualified respondent they had selected. The precontact protocol did not specify the cases in which the interviewers were to personally contact the chosen respondent; it only require that the person chosen meet several qualifying criteria (specific knowledge about the bank's ATM operations). In the course of this protocol, it was expected that some precontacts would conclude in a conversation with the respondent, and others would not. This treatment could not be experimentally applied, since it was often impossible to control whether or not the interviewer reached the respondent or not--in many banks, especially small ones, the first telephone call would be to the person ultimately selected, whether this was intended or not. On the other hand, gatekeepers could prevent direct access to the most likely respondent, even if interviewers felt that this was necessary to confirm their decision to select that person.

Therefore, one cannot rule out the presence of antecedent factors which might influence the purportedly independent variable of personal precontacting, or which may themselves have an independent effect on the outcome variables. For example, some interviewers less comfortable with their judgment in determining the correct respondent might pursue referrals to the best respondent more thoroughly, resulting in a higher percentage of personal precontacts.

In addition, characteristics of sampled organizations, such as size, make it more or less likely that a respondent would be spoken to directly. The evaluation of precontacting procedures below attempts to statistically control for these external factors. However, other latent factors may also be at work.

Results

Although the small effective sample size for this study, and the unbalanced distributions of outcomes such as response rate and targeting accuracy made detection of differences between subgroups difficult, several associations between survey characteristics and outcomes were detected.

Unfortunately, the non-experimental treatment of precontact personalization was applied at different rates by each interviewer: Personal precontact rates ranged from a low of 8% of the cases for one interviewer up to 63% for another. In addition, the sampled organizations in which preselected respondents were personally precontacted tended to be larger in financial size.

To try to estimate how much of the association between precontacting approaches and survey outcomes was accounted for by the factors of interviewer and organization size, each cross-classification indicating an association was statistically controlled for interviewer assignment and organization size. These two factors were also included in multivariate models to assess these interactions.

Hypothesis 1:

It was predicted that personal precontacting would increase response rates, and this was affirmed. While the overall response rate to the mailout survey was 87%, the response rate for those cases with personal precontacting was 95% (n=80), compared to 79% (n=112) for those not personally precontacted ($p < .01$). When the values of interviewer and organization size are held constant, these differences still persist. Within subgroups of individual interviewers and bank size subcategories, the differences are often no longer statistically significant due to the small number of observations, but are still in a consistent direction: personal precontacting yields a higher level of response. In a logistic regression of personal precontact status and total assets on response rate, the contribution of total asset size was not significant.

Hypothesis 2:

It was also hypothesized that personal precontacting should yield a higher rate of targeting accuracy (the rate at which the preselected respondents ultimately fill out the questionnaires), but the null hypothesis could not be rejected. While 71% (n=79) of the personally precontacted and responding cases were completed by the individual selected during precontact, and only 60%

(n=93) of the responding identification-only cases were completed by the pre-identified individual, this difference was not significant ($p = .15$). The same pattern was observed across interviewers and bank size categories.

Another interesting pattern did emerge, however: Even though the point estimates just mentioned are consistent with the possibility that precontacting increases targeting accuracy, and this same tendency was observed among large banks, and even though large banks had a higher rate of personal precontacting than small banks, yet the large banks responding in this study actually exhibited a lower overall percentage of responses from the targeted respondent. See Table I.

Table I: Targeting Accuracy by Size of Bank

	Proportion of banks where ultimate respondent was person preselected	
Large	54%	(n=67)
Medium	65%	(n=68)
Small	87%	(n=61)

$\chi^2 = 16.6, p < .01$

The conclusion is that it is more difficult to get the preselected respondent in larger banks to actually fill out the questionnaire themselves, despite a higher rate of personal precontacting among those large banks.

There are at least three possible explanations for this phenomenon. First, debriefings with interviewers revealed that in larger, more complex organizations, a third party making a referral to a likely respondent tended to be less familiar with that person's role, and therefore less sure of the referral. Interviewers therefore tended to follow up with more calls to "get closer" to the likely respondent. This might account for the higher level of personal precontacting in larger organizations. Second, given the complex role of facilitators and gatekeepers in organization surveys, there may have been some fuzziness in the selection of the "best respondent." Interviewers sometimes felt that a facilitator self-identified as the best respondent when he or she actually intended to distribute the questionnaire to one or more other people to fill out. This often occurred when supervisors facilitated surveys for their subordinates, or when a public relations specialist took on the role of coordinating responses across geographically dispersed offices or divisions.

Interviewers said that such scenarios were more common in large organizations. A third reason may be that in large organizations, information is more widely distributed across a greater number of units and employees, and so even though the preselected respondent actually did fill in most of the information on the questionnaire, he or she would ultimately pass it on to others for review or further input, and one of those actors, possibly the last such person, would identify themselves on the questionnaire as the respondent of record before returning it.

Hypothesis 3:

Personal precontacting should yield a higher level of data quality, operationalized here as the minimization of item nonresponse. However, the missing data rate was so uniformly low across all cases that no significant differences could be detected with the available number of observations.

Hypothesis 4:

Personal precontacting should result in higher precontacting survey costs (the number of minutes spent on the telephone during the precontact phase, and the total number of distinct precontact calls), but should reduce other aspects of survey cost (the total number of followup contacts and the total number of days from mailout to return--a shorter field period would

presumably lower survey costs). Of the four measures of survey cost, three of the four comparisons between the personal precontacting and identity-only precontacting groups were in the expected direction, but only one of them--the number of followup contacts--was significant (See Table II). As expected, personal precontacting reduced the need for followup contacts to encourage response, clarify missing or ineligible answers, or resolve respondent questions.

The mean costs of personal- and identification only-precontacting when controlling for bank size were generally indistinguishable given the small subgroup sizes, but the tendencies were in the same direction as the overall results for most comparisons. It was not possible to meaningfully analyze survey cost differences while controlling for interviewer assignment.

Discussion

This study appears to contradict past research conclusions that personalization in precontacting does not increase response rates.

The beneficial effect of personalized precontacting on response rates may be due to one or both of the following factors: 1) an increased level of personalization, in terms of fostering a personal appeal, or "person-targeting," and 2) an increase in the rate at which interviewers successfully identify the best qualified

Table II: Mean Survey Costs by Precontacting Treatment

Survey Cost Measures	Personal Precontact		Identification only Precontact		Difference of means test p (2-tail)
	\bar{X} (se)	n	\bar{X} (se)	n	
Number of minutes for precontact	9.56 (1.32)	52	7.22 (.83)	97	.117
Number of precontacts	1.77 (.10)	74	1.80 (.08)	106	.804
Number of followup contacts	0.74 (.14)	77	1.26 (.14)	111	.009
Number of days from mailout to return	14.4 (.99)	78	16.6 (.87)	96	.091

respondent--who may be more willing and able to respond--when they personally precontact. (However, this study did not confirm a statistically significant association between personal precontacting and the proxy for this second factor, targeting accuracy.)

The nonexperimental application of the precontacting treatment makes interpretation of the results more difficult. In addition, the precontact protocols required only that interviewers select the best qualified respondent, whether or not that necessitated a personal conversation with that person. Thus, the occurrence of personalized precontacting may be less important as a treatment, and more meaningful as an indicator that it was necessary to talk with someone directly to determine their qualifications as respondent.

The implication of varying rates of personal precontacting and targeting accuracy observed across bank size categories may reduce to simple conclusions that in larger, more complex organizations it is harder to locate the best respondent, information is more widely distributed, and that there are a greater number of organizational relationships that a survey request must traverse.

The screeners used to record what happened during precontacts did not fully capture the intricacies of how respondents were identified or the varied interactions interviewers had with sampled organizations. To make more meaningful statements about the effect of establishment survey techniques, the complex nature of how survey processes interact with the organizational environment must be recognized.

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¹ The statements made in this paper are the author's own, and do not represent the position of the U.S. General Accounting office.