estions, and organizing the two in-
s—that comprise every page.
hapter are unfamiliar to most well-
, include the simultaneous manip-
simplicity, location, and regularity
groupings of the information that
plication of some of these concepts
een done implicitly by many sur-
ires were first used. What is new is
capabilities have given every ques-
for this manipulation than were
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e see and process information. We
g words, shapes, and symbols on
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epts be added to the professional

ts to teach the integration of visual
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to visually shape a questionnaire
hat words are mostly irrelevant in
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ed arms and the declaration that
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nes leads to the conclusion that for
ive interviews done on dozens of
reality is as pure as it is sometimes
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t the science of applying these con-
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ire construction process is a docu-
d is ready to be turned over to the
in pursuit of a response from most
the topic of the next chapter.

CHAPTER 4

Survey Implementation

THE QUESTIONNAIRE is only one element of a well-done survey. Moreover, no matter how well constructed or easy to complete, it is *not* the main determinant of response to mail or other self-administered surveys. Implementation procedures have a much greater influence on response rates. Multiple contacts, the contents of letters, appearance of envelopes, incentives, personalization, sponsorship and how it is explained, and other attributes of the communication process have a significantly greater collective capability for influencing response rates than does questionnaire design.

Previous experimental research on how to improve mail survey response is unanimous on the influence of one primary factor on response rates. Multiple contacts have been shown to be more effective than any other technique for increasing response to surveys by mail (e.g., Scott, 1961; Linsky, 1975; Dillman, 1991). This finding should not be surprising inasmuch as repeated contacts are also key to improving response to interview surveys. Recent research confirms that this is also true for surveys by e-mail (Schaefer and Dillman, 1998).

Close behind in proven effectiveness is the use of token financial incentives sent with the request to respond. Other techniques, from personalization of correspondence to stamped return envelopes, have been shown to have modest effects on response rates in most survey situations, and are usually important for maximizing survey response (e.g., Dillman, 1991).

However, certain proven implementation techniques cannot be used for some surveys. For example, token financial incentives are currently prevented for use in most federal government mail surveys. Conversely, a technique found especially effective for certain government surveys, the statement that response is mandatory, cannot be used for the vast majority of surveys which are voluntary. Other techniques may be rejected because of concerns about burden to respondents; for example, certified mail, which requires respondents to sign for delivery and may, therefore, require a trip to the post office.

One of the most common mistakes made in the design of mail surveys is to assume the existence of a "magic bullet," that is, one technique that will assure a high response rate regardless of how other aspects of the survey are designed. As with the powerful engine and superior steering system that give distinctive qualities to certain high quality cars, these features do not excuse designers from giving careful attention to all other aspects of a car's design, from tires to paint. Such careful attention to details of survey implementation is the focus of this chapter.

FIVE NEEDED ELEMENTS FOR ACHIEVING HIGH RESPONSE RATES

Tailored Design utilizes, as a reference point, a general method of implementation that should achieve good results for most surveys. That method is then refined for specific situations, as described in subsequent chapters. It consists of five elements which have individually been shown to significantly improve response to mail surveys in most situations. Each element is shaped in ways that complement the other elements. These elements include: (1) a respondent-friendly questionnaire, (2) up to five contacts with the questionnaire recipient, (3) inclusion of stamped return envelopes, (4) personalized correspondence, and (5) a token financial incentive that is sent with the survey request.

ELEMENT 1: RESPONDENT-FRIENDLY QUESTIONNAIRE

Chapter 3 presented the elements of what makes a questionnaire respondent-friendly—questions that are clear and easy to comprehend, a question order that suggests high salience to the respondent, and a questionnaire layout that is in accordance with visual principles of design for comprehension and easy response. Certain other factors may or may not be within the power of the questionnaire designer to affect, such as shortening the questionnaire so that fewer questions are asked and the burden decreased, or creating interest-getting questions to draw the respondent into the questionnaire. Following the design principles discussed in Chapter 3 will have a modest but positive influence on overall response rates, and a somewhat greater influence on item-nonresponse.

ELEMENT 2: FOUR CONTACTS BY FIRST CLASS MAIL, WITH AN ADDITIONAL "SPECIAL" CONTACT

Multiple contacts are essential for maximizing response to mail surveys. Once, when suggesting multiple contacts to a client, the immediate response was, "No problem, we'll just print a lot of extra questionnaire packets and

stamp 'second notice' on the outside of the envelope." This meant that the dated letter and other contents would appear the same as those received earlier. Under social exchange, stimuli that are different from previous ones are generally more powerful than repetition of a previously used technique. People with whom the first letter was successful will not be subject to receiving a replacement questionnaire. Therefore, the later contacts need to be varied in an effort to increase their effectiveness with nonrespondents. A system of five compatible contacts includes the following:

- A brief *prenotice letter* that is sent to the respondent a few days prior to the questionnaire. It notes that a questionnaire for an important survey will arrive in a few days and that the person's response would be greatly appreciated.
- A *questionnaire* mailing that includes a detailed cover letter explaining why a response is important.
- A *thank you postcard* that is sent a few days to a week after the questionnaire. This mailing expresses appreciation for responding, and indicates that if the completed questionnaire has not yet been mailed it is hoped that it will be returned soon.
- A *replacement questionnaire* that is sent to nonrespondents 2–4 weeks after the previous questionnaire mailing. It indicates that the person's completed questionnaire has not yet been received and urges the recipient to respond.
- A *final contact* that may be made by telephone a week or so after the fourth contact (if telephone numbers are available). It may also be made by Federal Express, priority U.S. mail, or special delivery 2–4 weeks after the previous mailing. The *different mode* of contact distinguishes each type of final contact from regular mail delivery. Each of these delivery modes builds upon past research (Dillman et al., 1974; Heberlein and Baumgartner, 1978) showing that a "special" contact of these types improves overall response to mail surveys.

The contact sequence described here has several implied components that make it into more than a randomly assembled collection of five contacts. Each contact has a different look and feel to it. Each communication differs from the previous one and conveys a sense of appropriate renewal of an effort to communicate. The prenotice letter indicates briefly that something will be coming in the mail and asks for no immediate response. The first questionnaire mailing explains the nature of the request and asks for a response. The postcard follow-up has a different visual appearance (postcard versus letter) and is expressed as a thank you. The replacement questionnaire contains a powerful form of implicit personalization—"We've not yet heard from you . . ." The final contact expresses the importance of response to the sponsor by showing the expenditure of considerably more effort and resources, as reflected by the cost of delivery.

Timing is also an important aspect of the contacts. If the prenotice were to be sent several weeks ahead of the questionnaire mailing, it would be forgotten and have no effect on response. The postcard thank you is designed to get to respondents while the questionnaire is still in their possession and to provide a gentle reminder that the questionnaire is important. These latter mailings are timed to give a reasonable time for response prior to their being sent.

ELEMENT 3: RETURN ENVELOPES WITH REAL FIRST-CLASS STAMPS

Use of reply envelopes with real stamps affixed instead of business reply envelopes will improve response several percentage points. Sending a real stamp represents a goodwill gesture; the sender has sent something of value that recipients can use for some other purpose if they like. However, it is precisely this quality of reciprocating an effort of value that social exchange is about. A contributing factor to this positive effect may be the difficulty of throwing away anything with monetary value. The questionnaire is less likely to be discarded and will therefore be present when the carefully-timed postcard reminder is sent.

ELEMENT 4: PERSONALIZATION OF CORRESPONDENCE

Correspondence can be personalized in many ways—the use of real stationery printed on high quality paper, real names instead of a preprinted salutation of "Dear Resident," real signatures, or simply sending replacement mailings with the message: "To the best of our knowledge you have not yet responded." It has been suggested that personalization has lost effectiveness in recent years because it is easy to program word processors to write letters such as, "Dear Don Dillman, I am writing to inform you and your wife Joye that the XYZ Company has created a new dog food that we are sure your Boston Terrier, Crickett, will find to be very tasty. We would like to send a free sample to your home in Pullman, Washington . . ." Such letters are impersonal precisely because of the extreme effort to insert personal references.

Personalization might best be thought of as what one would do in a letter sent to a business acquaintance who is not well known to the sender. It provides the look and feel of being from a real person, rather than a carefully programmed computer. Recent tests of personalizing mailings on general public samples, each of which used four contacts, resulted in response rate increases of 5 to 11% in four-contact general public surveys in four states: Idaho, Oregon, Pennsylvania, and Washington (Dillman, Lesser, Carlson, Mason, Willits, and Jackson, 1999). In most cases, personalization is an integral part of Tailored Design.

ELEMENT 5: TOKEN PREPAID FINANCIAL INCENTIVES

As noted in Chapter 1, research has shown consistently that the inclusion of small, token financial incentives of one to five dollars with a request to respond to a mail questionnaire can improve response rates significantly. Promised incentives do not have nearly so great an effect on response, and have even been shown to have no effect at all. The reason is that promising to pay after the questionnaire is returned changes the terms of exchange from social to economic. It is easy to decline the request to complete a questionnaire when it offers to pay respondents for their time; if the price is too low, or the person simply isn't interested in doing it at any price, it is culturally acceptable not to respond. However, if a surveyor has made a goodwill gesture such as sending a dollar or two as a token of appreciation in advance, that produces a sense of reciprocal obligation, especially if the offer is made in a pleasant way. This topic is elaborated in more detail later in this chapter.

These five elements of a respondent-friendly questionnaire, five timely contacts, a stamped return envelope, personalization, and token financial incentives are the basic structural features around which an effective implementation system can be developed. As such, they constitute the skeleton around which additional details, to be described in the remainder of this chapter, are developed. Readers familiar with the mail survey literature will note that many techniques that have been researched are not included; these include, for example, deadline dates, color of questionnaire, material incentives, multiple denomination stamps on the outgoing envelope, official sponsorship, and length of cover letter. Some of these techniques appear to have no effect; for example, real stamps on outgoing envelopes. Others, such as material incentives, might be considered when the far more powerful token financial incentives cannot be used. Still others, such as orientation and length of cover letters, are details that depend upon the particular survey situation.

CHANGE FROM THE TOTAL DESIGN METHOD

Users of the original Total Design Method will note certain differences from that method, specifically the inclusion of token financial incentives, a stamped-return envelope (presented only as an option with the TDM), and a change in the number and type of contacts. The addition of incentives is the most significant difference and is based upon the fact that several experimental tests of the effects of token financial incentives in conjunction with use of the complete Total Design Method have produced significant increases in response rates (Dillman, 1991). Also, tantalizing evidence exists that token financial incentives may be especially effective with younger respondents (who are less likely to respond to mail surveys), thereby helping to reduce nonresponse error in certain populations (Dillman, 1997). The stamped return envelope, a technique mentioned as an option under the TDM, was added because of consistent evidence from the literature and several experiments of my own that produced a response improvement of two to four percent (Dillman, 1978, 1991).

Considerable research has suggested that a prior notice is an effective stimulus for reducing nonresponse (Dillman, Clark, and Sinclair, 1995), although this effectiveness seems to stem from the fact that an additional contact has been made rather than its uniqueness as a contact (Dillman, Dillman, Baxter, Petrie, Miller, and Carley, 1995). From a social exchange perspective, the prenotice letter provides an opportunity to send a different kind of contact (one not asking for an immediate response) which might be shaped in a way that builds interest and anticipation, and thereby influences the balance of rewards and costs.

The use of five contacts rather than four, as described in the first edition of this book, reflects changes in U.S. society. The basic TDM method began with a questionnaire mailing, followed by a one-week postcard thank you/reminder, a replacement questionnaire sent after two additional weeks, and a final replacement questionnaire sent by certified mail after three more weeks had elapsed. Certified mail was a very effective technique, eliciting responses from as many as a third of the nonrespondents to earlier mailings (Moore and Dillman, 1980; Dillman et al., 1974), but required recipients to sign for the letter. If recipients were not at home, this could require a trip to the post office. Early research showed that other special contacts—telephone, special delivery, and U.S. Postal Service priority mail—have effects similar to certified mail, but do not require that the respondent be at home to accept delivery (Moore and Dillman, 1980).

In addition, the trend in survey research has been for face-to-face and telephone survey methods to require more contacts to achieve a given level of response. The use of 20 to 30 contacts is not unusual. It is now standard telephone survey practice to attempt to convert "soft" refusals; for instance, people who have hung up while saying something like, "I don't have time." It has also been argued that the tailoring of the arguments used by interviewers in these multiple contacts is effective in improving response rates through refusal conversion (Groves and Couper, 1998). Adding another contact to a mail implementation system provides one more opportunity to shape the kind of request being made to nonrespondents, and in particular to seek response from individuals under-represented in early questionnaire returns.

One other consideration that has shaped the change from TDM to Tailored Design is the influence of sometimes conflicting pressures from groups with much influence over how surveys get done. The United States Office of Management and Budget strongly encourages agencies to use methods that achieve very high response rates, often 80%. To do that, especially with the general public, requires the use of an intensive implementation system. On the other hand, human subjects protection committees in universities and public agencies often place pressure on survey sponsors to reduce efforts to get recipients to respond to surveys in an attempt to keep intrusions into people's lives at a minimum.

Our goal in changing the number and nature of contacts from those used in the TDM is aimed at satisfying both needs. We are attempting to improve response rates, but to do that in a way that is not offensive to respondents. Both the prenotice and final contact by special mail or telephone, and the wording associated with each contact, are aimed at finding an appropriate balance. In the remainder of this chapter, step-by-step details are provided for implementing Tailored Design surveys.

DETAILED FEATURES OF THE IMPLEMENTATION SYSTEM

Research has shown that the failure to return a mail questionnaire can be traced to many different aspects of survey implementation. Kulka, Holt, Carter, and Dowd (1991), in an analysis of why people did not return the Decennial Census form, found that some people did not recall receiving it, others recalled receiving it but did not open it, and still others opened it but did not start to fill it out. Further, some of those who started to fill it out did not finish and some who finished did not mail it back. Reasons offered for not completing and returning a questionnaire range from "not thinking it's important" or "not interested in the topic" to "concern about confidentiality" or simply, "just not getting around to it."

Research by Heberlein and Baumgartner (1978) has shown that a strong predictor of response rates to mail surveys is the salience of the questionnaire. Questionnaires that asked about current behaviors or interests were defined as highly salient, while those that asked about neither were defined as not salient. An example of a highly salient survey, offered by Heberlein and Baumgartner (1978), is a Veterans' Administration survey of educational plans and interests of veterans who had expressed a desire for receiving educational assistance. A nonsalient questionnaire was confined to asking demographic characteristics of readers of a national magazine.

Salience is defined by Guralnik (1980) as "standing out from the rest; noticeable; conspicuous; prominent" and can be either positive, as operationalized by Heberlein and Baumgartner (1978), or negative. Our goal in designing each aspect of the implementation system from prenotice letter to return envelope is to create positive salience. We want each element to be noticeable, but in a way that creates a positive impression; that is, increases a sense of reward (this questionnaire looks interesting and important), reduces perceived costs (it looks easy to do), and creates trust (it came with two dollars that could be kept without sending back the questionnaire). The overall impression that is created, and thus the balance between rewards and costs, depends not only on individual elements but also on the consistency among those elements. Thus, each element, a description of which follows, should *not* be thought of as self-standing, but as part of an overall implementation system for which a change in one part is likely to have unintended consequences for another.

FIRST CONTACT: PRENOTICE LETTER

The purpose of a prenotice letter is to provide a positive and timely notice that the recipient will be receiving a request to help with an important study or survey. It should be brief, personalized, positively worded, and aimed at building anticipation rather than providing the details or conditions for participation in the survey. If a small token of appreciation is to be provided with the questionnaire, it should be mentioned here without going into details. In addition, this letter should be sent by first-class mail and timed to arrive only days to a week ahead of the actual questionnaire. An example of such a preletter is provided in Figure 4.1.

Research has shown consistently that a prenotice will improve response rates to mail surveys (Kanuk and Berenson, 1975; Fox, Crask, and Kim, 1988; Dillman, Clark, and Sinclair, 1995; Dillman, 1991), but it is unclear whether the effect stems from the fact it is one additional mailing and the more contacts the higher the response rate, or whether it is a unique type of contact. An attempt to test whether it has a unique effect (compared with other mailings) was made by comparing results between a preletter and a final letter sent after a replacement questionnaire. In three tests, results were from three to five percentage points higher for the prenotice, and the same for the fourth test, with none of the differences being statistically significant (Dillman & Dillman, 1995). In another test it was found that a prenotice letter added four to six percent to response rates for census questionnaires, a difference that could not be compensated for by a stamped return envelope, postcard reminder, or one replacement questionnaire in a four mailing sequence (Dillman, Clark, and Sinclair, 1995).

Results from a large sample pretest of a national government survey of Americans over 65 were once offered to me as evidence that preletters were not useful; that test revealed no difference between use of a preletter as an additional contact and no preletter. Upon examination, the reasons became apparent. First, the letter was sent nearly a month prior to receipt of the questionnaire, by which time it was likely to be a distant, if not forgotten, memory. Sending the letter only a few days ahead of the questionnaire avoids this problem. In addition, this letter was nearly two pages long, going into great detail about the reasons for the questionnaire, the fact that the request was voluntary, and other explanations that seemed likely to raise anxiety (and

Figure 4.1 Example of preletter to sample of new state residents who turned in out-of-state driver's licenses to get a Washington driver's license.

Washington State University
Social and Economic Sciences Research Center

Wilson Hall 133
PO Box 644014
Pullman, WA 99164-4014
509-335-1511
FAX 509-335-0116

Date	→	July 1, 1999
Inside address	→	L. T. Hansen 2121 Lincoln Way East Uniontown, WA 99962-2056
What will happen	→	A few days from now you will receive in the mail a request to fill out a brief questionnaire for an important research project being conducted by Washington State University.
What it is about	→	It concerns the experience of people who have moved to Washington state, and how they feel about living here.
Usefulness of survey	→	I am writing in advance because we have found many people like to know ahead of time that they will be contacted. The study is an important one that will help government agencies as well as employers in Washington understand who is moving to Washington, and whether their expectations are being met.
Thank-you	→	Thank you for your time and consideration. It's only with the generous help of people like you that our research can be successful. Sincerely,
Real signature	→	Don A. Dillman Professor and Deputy Director
Token incentive	→	P.S. We will be enclosing a small token of appreciation with the questionnaire as a way of saying thanks.

therefore "costs"), but that the recipient could not resolve by being able to see the nonthreatening content of the questionnaire. Much of this information needed to be presented to the respondent, but the actual cover letter that accompanied the questionnaire would have been a much better place to present it.

Occasionally, when a preletter has been recommended for starting the survey sequence, someone has objected to the format on the grounds that, "I wouldn't open a letter, but I would look at a postcard." My choice of a letter instead of a postcard is deliberate. It takes perhaps 20 seconds to get an event into long-term memory. A postcard can be looked at, flipped over, and laid aside in only a few seconds. Thus, I recommend a letter that will take longer to open and on which more information, including trust-inducing elements such as letterhead stationery, personalized address, and signature can be included to help define the survey as important. The goal is to convey the idea that something important is about to be sent to the person to whom the letter is addressed. Consistent with the idea that variety by itself has value in making each mailing more salient, we save the postcard format for the third contact (the thank you/reminder) where it will be a fresh stimulus that appears quite different from the prenotice letter.

In surveys that are contracted to another organization for data collection, it may be useful to have the preletter come from the study sponsor on its stationery. An example is when a government agency contracts with a private firm to conduct the survey. Inasmuch as government sponsorship tends to improve response rates (Heberlein and Baumgartner, 1978), having the preletter processed on the appropriate government stationery is desirable. Such a preletter provides an opportunity to explain briefly that the survey is being conducted for that agency by the XYZ Company, thereby invoking the exchange elements of authority and legitimacy.

SECOND CONTACT: THE QUESTIONNAIRE MAILOUT

The questionnaire should be sent only a few days to a week after the prenotice, again by first class mail. This mailing contains several elements: a cover letter, the questionnaire, any token of appreciation, and a return envelope. Design attention needs to be focused on the individual as well as on the collective impact of the mailout components on the respondent.

Initially, it is important to contemplate where the information to be included in this mailout best fits. For example, I have seen some questionnaires that provide information inside the questionnaire cover about who should respond and how, which was then repeated almost word for word in the cover letter, a decision that contributed to the letter becoming three pages long. Sometimes separate sheets of instructions on how to answer certain questions are included. I have also seen mailing packages that included a second cover letter that was intended as support for the study, but probably did no more than contribute to the bulk of the mailout package. For these reasons, construction of the mailout package begins by deciding what information should and should not be included and in which element it should be expressed. As noted in Chapter 3, there are compelling reasons for placing information exactly where it is to be used. If this is done, it tends to reduce the total number of words as well as the number of separate pieces that must be included in the mailout.

The Cover Letter

The cover letter should be limited to one page, including certain critical pieces of information, each of which is detailed below. Style is important. Sometimes when people begin to draft letters they immediately adopt an impersonal approach that treats the recipient more as an impersonal object than someone from whom they are about to request a favor. For example:

> I am writing to people like yourself because it's necessary for my agency to complete a technical needs assessment as a matter of agency policy.
>
> or
>
> In order to help you do a better job of completing your future tax returns, we want to know what problems you have had in the past.

The first of these sentences conveys that the letter is being written to a lot of people, and concerns something important only to the agency. The second example implies that the agency is going to help respondents do what they should have been doing all along. From an exchange standpoint, the first sentence immediately eliminates reward value and the second one incurs cost by subordinating the respondent to the writer, as explained in Chapter 1.

It is useful when writing cover letters to create a mental image of an acquaintance with an educational level a little lower than the average of the survey population from whom assistance is being requested. Then a letter is composed that communicates specifically to them. My goal is to find a style and specific wording that reflects normal social interaction surrounding a diplomatic and socially appropriate request. It should be short, but also needs to convey all of the essential information. The written request is also aimed at conveying an attitude of straight-forward communication that is not misleading, just as would be done in a conversation with a person with whom we hoped to maintain a mutually respectful relationship. I have also suggested to some study sponsors that they view cover letters as costing them 10 cents a word out of their pockets; it is a cost not so high as to prevent doing what is necessary, but high enough to make one aware of unneeded phrases and sentences. The elements considered essential for an efficient but effective letter follow.

Date. I once drafted a letter for an agency that included the mailout date at the top. It was approved, but only after the mailout date had been removed. The letter was resubmitted to the correspondence management office with the date reinserted, and it again came back deleted. A subsequent conversation revealed that it was a matter of agency policy not to put dates on letters used in large surveys because of variable mailing dates. Such policies need to be changed.

The date at the top of the letter is the first element of personalization. One is unlikely to send a letter to a business acquaintance without putting the date at the top and its removal is an immediate indicator that this is a relatively unimportant letter that can be ignored. Changing the specific date to only a month, for example, "July, 1998," is unconventional and should also be avoided.

Inside name and address. A certain sign of unimportance is to begin a letter with, "Dear Citizen" or a general synonym like resident, friend, neighbor, or colleague. The salutation indicates to whom the request that follows is being addressed. With today's word processing equipment, merging letters and names in the printing process is quite simple. For this reason it is often suggested that omitting names and addresses no longer makes a difference. In contrast, I believe that the new ease of merging word files makes the absence of names and addresses more noticeable, especially when a generalized substitute is included. It conveys more quickly and effectively than any other component of the letter that a form letter is being sent.

There is one situation in which names and addresses are not placed on the letterhead stationery. This is when a respondent selection process is being carried out (see below) and the name on the sample list may not correspond to the person who is being asked to respond. An example is the use of telephone directory listings from which an adult is asked to respond for the household. The use of such listings in the past has resulted in a higher proportion of males responding for household surveys, despite selection criteria, such as the person with the most recent birthday, being specified in the letter. The reason for this bias is that husbands are more often listed in telephone directories than are wives. Although this situation is changing, it has not disappeared and appears to be associated with older households for which listings have stayed the same for many years. In these cases a modified address might be used, for example, "To residents at 9021 SW Marcel Street," or "To residents at this address," which is somewhat more personalized than simply using "Dear Resident."

Salutations. The appropriateness of salutations varies significantly from one situation to another. I once assisted with a survey in which the cover letter was signed by an association president who kept an address file of salutations he felt comfortable with. Accordingly, some letters began with a personal style, such as "Dear Alice," while others began with a more formal style, such as, "Dear Dr. Henry."

When there is no preexisting relationship between the sender and receiver, and the gender is known, salutations like: "Dear Ms. Adamson" or "Dear Mr. Adamson" are appropriate. However, it is increasingly difficult to determine gender from a name, and many names appear simply as initials. In such cases, the salutation should be omitted rather than risking offending the recipient.

What is this letter about? It is perhaps easier to indicate what not to do than to indicate the best approach to use for a specific letter of transmittal. Surprisingly, many cover letters start out in this way:

> My name is Dan Scurry and I'm writing to ask your help with a survey being conducted by the University of California Department of Health Services.

All of this information is conveyed in other places, from the letterhead to the signature, and by our 10 cent per word standard not using this sentence represents an immediate savings of $2.60.

Another style I seek to avoid is that of a monologue, which by the end of the first paragraph in this letter about public smoking policies has still not explained why this letter has been sent:

> As you are undoubtedly aware, smoking is of grave concern to many people throughout America. Increasingly, the health concerns associated with smoking are becoming better known and preventing smoking among youth is one of the nation's highest priorities. It's important to understand all aspects of this important national issue.

A more appropriate beginning is illustrated by the cover letter shown in Figure 4.2. It explains in a brief introductory paragraph what is being requested and is followed by a second paragraph that explains why.

Why this request is useful and important. The second important message of the letter explains why the action requested of the recipient is useful and important. This is often the most difficult part of the letter to write. In a scientific assessment of the general public's attitudes towards the environment, it is inappropriate to explain the usefulness of the study in this way:

> It is important to keep big business from harming the environment, so we are doing this survey to get your honest opinions on the extent to which you feel the environment should be protected.

Such an explanation is obviously biased, giving the impression that the sponsor wants responses from people who have opinions that are highly supportive of protecting the environment. The goal here is to design an appeal that makes it unclear which side of an issue, if any, corresponds to the sponsor's beliefs and that asks for an honest opinion. For example:

> It is unclear whether people want either more or less to be done by state government to protect the environment than is now being done. Only by asking people throughout the state to give their honest opinions can we learn what people do and don't want our government to do. The results of this survey will be summarized and provided to all legislators from both political parties for their possible use in the upcoming legislative session.

An attempt is made to couch the usefulness argument broadly. In this case the desire for possible government action by both political parties has been used, not only to balance the argument, but to convey a use that most citizens are likely to support. In practice, one quickly realizes that there are virtually no arguments with which absolutely every recipient would agree—in this

Figure 4.2 Example of cover letter (second contact) to sample of new state residents; to follow preletter.

Washington State University
Social and Economic Sciences Research Center
Wilson Hall 133
PO Box 644014
Pullman, WA 99164-4014
509-335-1511
FAX 509-335-0116

Date	→	July 8, 1999
Inside address	→	L. T. Hansen 2121 Lincoln Way East Uniontown, WA 99962-2056
The request	→	I am writing to ask your help in a study of new residents being conducted for the state of Washington. This study is part of an effort to learn what draws people to the state, and whether they are happy or unhappy with what they find here.
Why you were selected	→	It's my understanding that you may have moved to Washington state sometime in the last few years. We are contacting a random sample of new residents from every county in the state to ask why they moved, what their employment experience has been, and whether services are meeting their needs.
Usefulness of survey	→	Results from the survey will be used to help state and local government make Washington a better place for new residents like you. By understanding what people want when they move here, public officials can do a better job providing services and improving the state's quality of life. And by knowing more about the job skills of new residents, public agencies and private businesses can help make the most of what new residents contribute to the state's economy.
Confidentiality	→	Your answers are completely confidential and will be released only as summaries in which no individual's answers can be identified. When you return your completed questionnaire, your name will be deleted from the mailing list and never connected to your answers in any way. This survey is voluntary. However, you can help us very much by taking a few minutes to share your experiences and opinions about Washington state. If for some reason you prefer not to respond, please let us know by returning the blank questionnaire in the enclosed stamped envelope.
Token of appreciation	→	We have enclosed a small token of appreciation as a way of saying thanks for your help.
Willingness to answer questions	→	If you have any questions or comments about this study, we would be happy to talk with you. Our toll-free number is 1-800-833-0867, or you can write to us at the address on the letterhead.
Thank-you	→	Thank you very much for helping with this important study.
		Sincerely,
Real signature	→	Don A. Dillman Professor and Deputy Director
		P.S. If by some chance we made a mistake and you have not moved to Washington (or back to Washington after living somewhere else) since January 1990, please answer only the first question in the questionnaire and return the rest of it blank. Many thanks.

case some would want government to do absolutely nothing—but this argument is likely to have some appeal for most people. Therefore, it may tap the social exchange element of feeling that one is doing something useful by responding.

Answers are confidential. This statement conveys an ethical commitment not to release results in a way that any individual's responses can be identified as their own. Inasmuch as an identification system is normally used to allow people's names to be deleted from the mailing list, it is important to explain this commitment as one of protecting confidentiality, rather than guaranteeing anonymity. Only when the sponsor cannot identify each person's response, even momentarily, is it appropriate to promise that a response is anonymous.

Most organizations that routinely do surveys now have human subjects protection boards that review survey proposals. These boards often require that the surveyor specify the exact way in which confidentiality will be protected, when and how any identifiers will be destroyed, and sometimes follow up to make sure that this is done.

In recent years the improved technological capabilities for building and analyzing large data files has led to some surveys in which the sponsor wishes to connect the results of a survey to other files containing information on that individual. For example, in an opinion survey of people who have stayed in a hotel, the sponsor might wish to connect these opinions to how many nights the respondent has stayed during the last year, and even send incentives for future stays based on the results of such an analysis. Such a use would not be consistent with the promise of confidentiality that indicates answers are not connected in any way to a respondent's name.

Sometimes there are very good reasons for connecting results from a new survey with answers to a previous survey. One example is a panel study that is designed to measure individual change from an earlier survey. In such cases it should be explained that a connection is being made with the previous data respondents provided; for example:

> Your answers are completely confidential. Although a comparison will be made between the answers you provide to this survey and the one you kindly completed two years ago, results will only be released as summaries in a way that no individual's answers to either survey can be identified.

My goal in explaining confidentiality is to be honest but brief. Research by Singer, Von Thurn, and Miller (1995) has suggested that detailed explanations of confidentiality can discourage people from responding. Providing a long and unnecessarily detailed explanation, even when the data being collected are quite nonthreatening, raises concerns that "There must be a problem or they wouldn't be telling me all of this stuff about protection." Also, such detailed explanations may turn a simple one-page letter into a treatise that is several pages long. For this reason a two-pronged approach is used to protect and convey confidentiality information to respondents. It consists of approval by organizational human subjects boards of detailed procedures that are made available upon request to anyone who wishes to see them, and a much less detailed but accurate description of procedures to potential respondents.

Voluntary participation. It appears that most human subjects boards now require that questionnaire recipients be informed when a survey is voluntary. It is useful to connect this phrase with instructions on what to do if the respondent does not wish to respond, for instance, "Please let us know by returning the uncompleted questionnaire." Obtaining a "positive action" from nonrespondents makes it possible to remove their names from the follow-up mailing list. Use of this procedure in many surveys has resulted in relatively few additional refusals (typically one to three percent of the mailing), and it seems doubtful that many of these individuals would have responded to follow-ups. In many instances the information about being voluntary can be expressed in the same paragraph as encouragement to respond (see Figure 4.2).

Enclosures of stamped return envelope and token of appreciation. These elements of the mailout package are easily seen by the respondent. A detailed explanation is not required for them to be effective. For these reasons, mention of them is relegated to the latter part of a paragraph and expressed in a casual way. However, they are mentioned for the benefit of anyone who reads the letter without other elements of the mailing package being present. Mention of the token of appreciation provides another way of saying thank you in advance of the person's response.

Who to contact with questions. Offering to answer questions and providing a toll-free number for people to call conveys the idea of accessibility. If people want to know something about the study they can find it out. This information helps convey trust that the survey is legitimate and important. It is an essential component of a good cover letter.

A real signature in contrasting ink. A letter of request for help to a business acquaintance would definitely include a personal signature. An attempt is made to emulate that appearance on all requests to questionnaire recipients. In the description of the Total Design Method, this process was referred to as applying a "pressed blue ball-point pen signature." It was also recommended that the letter be signed on a soft surface in order that the recipient could tell that a real signature had been applied.

A substitute for this signature is to preprint the signature in a color (blue) that contrasts with the black type. A signature stamp can also be applied individually to letters or a signature machine can be used. When doing a survey of a few hundred recipients, applying real signatures may be easy to do; when faced with a survey of several thousand, it may not be a realistic alternative. Personalization has many aspects, including use of individual names and letterhead rather than copied stationery, that may compensate to some extent for being unable to apply real signatures. In general, I expect to achieve a collective impact of five to eight percentage points from the use of personalization elements and I do not know how much a real versus facsimile signature, by itself, contributes to the final response rate. Nonetheless, to the extent possible, each letter is an individual appeal to each respondent, much like a voice on the telephone, so that the letter should be individually signed whenever that is possible.

Addition of a postscript. Postscripts are one of the most visible aspects of a letter, often getting read before the remainder of the message. It is an appropriate place to express "thanks again," to mention the inclusion of the token incentive, or as done in Figure 4.2, to recognize that a mistake may have been made on eligibility for the study and tell people what to do (e.g., return the uncompleted questionnaire along with a brief explanation). However one chooses to use the potential for a postscript, the high likelihood of its being read should be recognized.

Identification of each questionnaire. Each questionnaire has an individual identification number that is printed directly on the questionnaire by running it through an envelope address printer. Alternatively, it may be printed on a transparent label that can be affixed to the questionnaire. This is done so that follow-up mailings, an essential aspect of Tailored Design, can be sent only to non-respondents (with the exception of returns that cross with the follow-up letter in the mail) and not create inconvenience or confusion for those who have already responded. A number is stamped, or simply printed, in plain view on the front or back cover of the questionnaire. Attempting to hide the number by placing it in small type on an inside page, or embedding it into something that might be referred to as a form, approval, or processing number (e.g., "Approved Form 91854") is inconsistent with the image of making an honest effort to communicate openly with questionnaire recipients.

Occasionally I have heard of attempts to hide identification numbers by using invisible ink that will show up only under an ultraviolet or other special light. Such procedures are unethical and should not be used. Moreover, informing respondents of the presence of an identification number seems not to have a serious negative effect on response rates, especially when compared to not being able to use the tailored follow-up that it facilitates. Respondents sometimes tear off identification numbers, a fact that encourages us to place them in the corner of questionnaires where their removal does not eliminate answers to questions. This action will result in the sending of reminders to people who have responded, but such follow-up seems unlikely to come as a surprise to the respondent who has removed the number.

Figure 4.3 Example of separate return postcard used to facilitate anonymous return of questionnaires.

Identification number:	Questionnaire #3456
Purpose:	This postcard is being returned to let you know that my questionnaire has been returned in a separate envelope.
Name:	______________________ Your name (please print)
Appreciation:	Thank you very much for your help with this important study. We really appreciate it. Don A. Dillman The Social & Economic Sciences Research Center at Washington State University

Sometimes the data obtained by mail questionnaires is considered so sensitive that the sponsor wishes not to be able to identify responses with an individual, even momentarily, while deleting the name from the mailing list. This might occur for questionnaires associated with litigation, or simply because of information being asked about sexual behavior or drug use, which a respondent might be reluctant to divulge. In this case one might consider sending a stamped, self-addressed postcard that the respondent can send back separately from the questionnaire to indicate that it has been returned (Figure 4.3). A message can be included in the cover letter along these lines:

> All answers to this questionnaire are completely anonymous. There is no identification number of any kind on the questionnaire. However, to let us know that your questionnaire has been returned, please sign and return the enclosed postcard *separately* in the mail so we can check your name off of the mailing list. That way, no reminder questionnaire will be sent to you.

The essential elements for this postcard are a reference to the topic of the study, a respondent identification number, and the person's name or signature. The frequent illegibility of names or signatures prevents their use as the sole means of identification.

Sending such a postcard is more costly than using an identification number on the questionnaire, and results in a more complex mailing. When used for the collection of ordinary questionnaire information, too great an emphasis on protection may raise a false sense of concern to respondents that they are being "tricked" in some way, and thereby discourage response. In the few

instances in which I have used this procedure, the number of postcards returned has corresponded closely with the number of questionnaires sent back. Just as in the case of cashing incentive checks, where most but by no means all of the respondents cash their checks, I suspect that correspondence between returning a postcard and a questionnaire is good but not perfect.

Inclusion of token financial incentive. Perhaps no other aspect of doing surveys by mail has attracted as much interest or controversy as providing special incentives to encourage response. It is also an area that has received much research attention. Some organizations would not think of conducting a mail survey without providing an incentive, whereas others object to their use as a matter of policy.

Neither the extent of interest nor the degree of controversy is surprising. Second to multiple contacts, no response-inducing technique is as likely to improve mail response rates as much as the appropriate use of financial incentives. However, widely different views exist, as evidenced by prevailing practices with regard to the types, amounts, timing, methods of delivery, and implications of their use. Each of these issues is addressed separately below.

Should the incentive be sent with the questionnaire or as payment afterwards? On this issue the evidence is particularly clear. Token financial incentives of a few dollars included with the request have been shown to be significantly more effective than much larger payments sent to respondents who have returned their questionnaires. For example, James and Bolstein (1992), in a study of small contractors (in many cases one-person firms) found that only 57% responded to a survey in which they were promised $50 afterwards, compared to 64% who had been sent a one-dollar bill with the questionnaire, and 71% who had been sent a five-dollar bill. Johnson and McLaughlin (1990) reported that sending a five-dollar bill to a large sample of individuals resulted in an 83% response compared with only 72% who were promised a 10 dollar payment after the questionnaire was returned, which was about the same as for those who received no incentive. It is noteworthy that the response effect measured by both of these authors was with a four-contact implementation strategy using personalized mailings, so that the high response rates achieved were on top of the effects achieved through other means. However, a benefit of sending a payment afterwards is that people may provide more complete answers, that is, lower item nonresponse, an effect observed by Johnson and McLaughlin (1990). However, the difference they observed was judged relatively minor compared to the 10% increase in response from the smaller prepaid incentive. Thus, I find the case for favoring postpayment rather than prepayment of incentives weak at best. These results are supported by a recent meta-analysis of 38 experimental studies by Church (1993), who reported no statistically significant effect from rewards that were contingent upon the return of the survey.

These results are also quite consistent with the social exchange theory explained in Chapter 1. Sending the money with the questionnaire is a goodwill gesture that puts the sponsor and questionnaire in a positive light and sets the stage for the respondent to reciprocate with an appropriate gesture of completing the questionnaire. Its strength is that the request is not presented to respondents as an economic exchange: "If you complete this questionnaire I will pay you for it." Individuals are acculturated to evaluate such offers with regard to whether the amount offered is worth the effort that is required. Offering payment contingent upon completion not only introduces consideration of the value of one's time, but also undermines the entire calculus of social exchange that I am attempting to achieve.

How large a cash incentive is needed? Although the literature is full of examples of coins, handling coinage is difficult and the tradeoff with higher postage costs is significant. Thus, I consider one dollar the smallest practical amount to send. Support exists for somewhat larger amounts being more effective, but there clearly are diminishing returns, with far more of an increase coming from the first dollar than from five or ten times that amount. For example, James and Bolstein (1992) reported a 12 percentage point increase (52% to 64%) from one dollar versus no cash incentive, and only an additional two to seven percentage point increase for five- and 10-dollar incentives, with the lower increase coming from the 10-dollar incentive. With several colleagues, I have run five separate tests of a two-dollar incentive which showed that response to a four-wave personalized mailing was improved an additional 19 to 31 percentage points (Lesser, Dillman, Lorenz, Carlson, and Brown, 1999). This research also suggests that the two-dollar incentive was equally effective regardless of whether sent by cash or by check, or as one- or two-dollar bills. This modest prepaid incentive has proved to be strikingly powerful.

Should token financial incentives be sent as cash or a check? Checks work about as well as sending cash, at least for amounts of five dollars or over (Tortora et al., 1992), a conclusion recently supported by Lesser et al. (1999). Small checks may be seen as somewhat of a nuisance, but may still have a significant effect on response rates. In addition, many people do not cash checks. Both Lesser et al. (1999) and James and Bolstein (1992) found that less than 30% of the nonrespondents cashed their checks, whereas about 80% of the respondents did so. Thus, it would appear that money could be saved by sending checks, and that the organizational challenges of handling cash, including that returned in undeliverable mail, can be avoided.

However, the advantage to checks may be less than it appears. Checks have to be written and matched with appropriate envelopes, with corresponding paperwork completed. When checks do not get cashed, and many will not, then they must be carried on the organization's books for a period of time. I once recommended to a large government agency that it use checks for five-dollar incentives because I did not think the handling of cash would be approved. Thus, I was surprised when the head of the accounting division approached me with a plea to use cash. He indicated that the costs to the organization for writing and handling checks would greatly exceed the total cost of the incentive, and he wanted to avoid the prospect of hundreds of uncancelled checks.

Will material incentives work as well? The above mentioned meta-analysis by Church (1993) also found that material incentives improved response rates by eight percent compared with 19% for token financial incentives. It is noteworthy that eight of the 12 studies Church analyzed included a ball-point pen or pencil as an incentive (Church, personal communication, April 12, 1993). However, the average response of studies with the material incentives was only 37% (compared to 28% without). Thus, the use and effects appear to have been measured mostly in situations where multiple contacts and other response-inducing procedures were not used. However, a more recent five-contact mail survey (four by mail and a final follow-up by telephone) of people who renewed driver's licenses in Washington state to assess customer satisfaction produced an eight percentage point advantage (67% versus 59%) for those who received a very inexpensive purple ball-point pen with the words "Department of Licensing" on it (Boynton, 1995).

The frequent use of ball-point pens as material incentives raises questions about the extent to which packaging might have contributed to response. The bulky nature of pens generally draws attention to mail packaging. A larger envelope and hand cancellation may be needed. For example, the pen sent by Boynton (1995) was enclosed in a soft pack mailer that made it distinctively different from the other treatment, which was sent in regular business letter envelopes. Patchen, Woodard, Caralley, and Hess (1994) found in a study of radio listener diaries that sending the diaries in a box about the same size and shape as that used for holding a half-pound, one-layer box of chocolates improved response rates significantly—from 38 to 42%, or nearly four percentage points. It is possible that ball-point pen incentives receive a boost in effectiveness from the unusual packaging required for sending them, an effect that increases the salience of the mailing quite apart from the fact that a material incentive is being sent.

It appears that material incentives, and ball-point pens in particular, may modestly improve response rates. However, the likely improvement is far less than one would expect with a financial incentive of comparable value.

Do lotteries, contributions to charity, or offers of prizes improve response? Chances to win a prize ranging from cash to airline tickets are frequently offered in surveys. It appears that these offers have a relatively small, if any, effect on response. A comparison by Carlson (1996) of a two-dollar bill, a chance to win $300, and no incentive in a survey of new residents of Idaho resulted in a response rate of 54% for the control group compared to 58% for the lottery and 73% when the two-dollar bill was sent. Another study that compared lotteries, cash, and contributions to charities showed that only prepaid cash incentives made a difference in response rates (Warriner, Goyder, Gjertsen, Hohner, and McSpurren, 1996). Even if prizes or lotteries can boost response a small amount, the effect, when compared to sending a token cash incentive, is quite small.

A reason that prize offers or contributions to charity seem to have so little effect on response rates is that unlike prepaid incentives, the meaning of a promised incentive shifts from a social gesture that elicits the feeling that one needs to reciprocate to an indirect payment for services rendered. Neither of these offers invokes feelings of a need to reciprocate for a previously made gesture of goodwill, as does a prepaid incentive.

Is it worthwhile to repeat the incentive when a replacement questionnaire is sent? I have seen no evidence that repeating incentives of any kind, whether cash or offers of prizes in later mailings, is effective. This is not surprising and is consistent with the perspective that each contact with respondents should appear different, rather than simply repeating a previous one.

In sum. A very strong case can be made for the use of a modest cash incentive. Its impact on response is likely to be stronger than any other stimulus except for multiple contacts with respondents. A less compelling case can be made for the use of material incentives whose impact will be much less, and curiously, may be associated most with carefully packaged ball-point pens. However, unless one obtains the pens free, it seems likely that sending a two-dollar incentive, like the one discussed here, will be less costly. Finally, it is much more difficult to make a case for sending postpayments of any kind, including lotteries and prizes.

Stationery, Envelopes, And Other Packaging Decisions

The original Total Design Method included many detailed recommendations for packaging and mailing the questionnaire. For example, I recommended the somewhat reduced "monarch" size (7¼" × 10½") paper and envelopes to encourage a sense of the questionnaire being smaller and therefore easier to fill out. Printing of the questionnaire in a smaller booklet size (6⅛" × 8¼") than that allowed by folding standard legal size paper into a booklet (8½" × 7") fit nicely into these smaller envelopes and produced occasional savings in postage. Names and addresses were typed directly onto envelopes rather than onto labels.

It appears that no experiments have shown a significant improvement in response from the use of these smaller sizes. One large scale experiment (Moore, 1980) showed that using large standard brown envelopes with a study logo printed on the outside produce a slightly higher (although not significantly different) response than did standard TDM packaging. Also, it has

become increasingly difficult and more costly to utilize these unusual sizes. The printing industry is now capable of accomplishing amazing variations in printing. In addition, technological innovations have made it possible for small copy centers and many individual offices to produce questionnaires and letters in ways not possible at the time that book was written.

However, from a cost standpoint, the use of a standard stationery size is favored. In addition, it appears that the advent of optical scanning (discussed in Chapter 12) is also pushing us in the direction of using standard 8½" × 11" questionnaires. Finally, I am influenced by the findings of Patchen et al. (1994) that unusual packaging may draw attention to one's mailing rather than causing it to be dismissed.

Letterhead stationery is important, partly because of its integral connection to personalization efforts. For mailout envelopes, regular business envelopes (4¼" × 9½") are recommended but there is no reason to avoid larger envelopes where warranted by the size of the questionnaire, such as a questionnaire that is printed as an 8½" × 11" booklet.

The computer age has placed address labels in more favorable light than in the past. They no longer convey a lack of personalized attention to the respondent, unless last names are printed first or address file information is included. As a friend with a new computer explained, "I even put labels on the letters sent to my children; I don't know how to print directly onto the envelope."

When designing the mailout package there are a number of things that should be avoided. This is not the place for a special stamp saying, "Important materials are included," or "Your personal response is required." Neither is it advisable to use brightly colored envelopes that convey a marketing image (Leslie, 1997). A careful look at the many mass mailings received by the average household in a day helps to identify many things not to do. The desired image I wish to convey is that an important request from someone has been sent to the respondent. It is important that the packaging on the outside as well as what is seen when one opens the envelope not convey an image of having been mailed in bulk. Portrayal of this image of importance continues with the next topic, postage.

The importance of first-class postage and how to apply it. It is tempting to save money by sending mail questionnaires by third class or bulk rate mail. The current cost is significantly less, especially for larger mailings—about 30 cents for up to 3.3 ounces versus 33 cents per ounce for first-class mail. However, this advantage is offset by several disadvantages.

There are three reasons that bulk rate mail is avoided. First, its use requires a bulk rate insignia or stamp on the outside of the envelope which is inconsistent with the image of importance that is being sought. Second, bulk rate mail is delivered at a lower priority than first-class mail and can be held temporarily in each of the distribution centers through which it passes. When mail quantities are light, there may be no delay, and we know of instances in which bulk mail deliveries have arrived the same time as first-class mail. In other instances, when large quantities of first-class mail must be delivered, delays of up to two weeks have been observed in cross-country deliveries. Such delays sometimes result in prenotices or reminder postcards being delivered out of order with the actual questionnaire, a situation that contributes to the survey being defined as unimportant. The third drawback is that third-class mail is not forwarded automatically to a new address, as is the case for first-class mail. Also, unless return postage is guaranteed, it is not returned to the sender if it cannot be delivered.

It is my impression that the U.S. Postal Service does an excellent job of handling mail. However, it must be remembered that it is also a huge organization with an enormous number of processing and distribution points. In addition, the quantity of mail it is asked to process on a daily basis varies greatly. If mistakes are made they seem most likely to happen at peak load times, or when it is asked to perform extra services that are somewhat unusual, such as forwarding or returning bulk rate mail. With bulk rate mail, less personal effort seems likely to be made by carriers to assure delivery; for instance, they may be less likely to correct a small address mistake. Although bulk rate mail can produce cost savings, it may produce coverage problems that cannot be corrected. Finally, the initial negative impression on the respondent and the occasional frustration of getting a reminder to return a questionnaire one has not received lead me to conclude that bulk rate mail should not be used for mail surveys.

Either stamps or metered postage may be used for outgoing mail. There appears to be no experimental evidence that the use of actual stamps on the outgoing envelope produces higher response rates, and at least one experiment showed no effect (Dillman, 1978). Most of the important mail that now arrives in people's homes has been processed through a postage meter. Use of a postage meter for outgoing mail has the advantage of being faster than applying stamps, and some meters can seal the envelope at the same time. The important function of the envelope appearance is to get it opened, and the fact that it is first-class mail is usually sufficient. Use of the carefully timed prenotice and postcard reminder help get the envelope opened, as well.

First-class mail is automatically forwarded if the addressee has a current (less than 90 days old) forwarding address on file with the U.S. Postal Service. It is also possible to print or stamp "address correction requested" or "forwarding service requested" on the envelope and the new address will be provided to the sender for up to one year after it has expired. In some studies, address corrections are useful for determining whether people drawn in the sample are still in the population to be surveyed. The new address can also be used to update sample lists and to remail questionnaires that were returned because of the expired forwarding address.

When sending any large mailing it is useful to obtain information on current postal procedures. The introduction of automatic scanning and sorting equipment means that certain areas on the envelope are specified for postal use only. The use of capitals and the absence of punctuation (e.g., PULLMAN WA 99164-4014 instead of Pullman, Washington 99164), locating that information within a specified space near the bottom of the envelope, and not placing any other information to the left of the address help the equipment process mail correctly.

Use of a stamped return envelope. Just as one may be tempted to use bulk rate outgoing mail, one may be similarly tempted to save money by using business reply envelopes. Such envelopes are processed by the U.S. Postal Service for a small annual charge for the permit necessary to use this service, and postage is paid only for envelopes that are returned.

As already noted, evidence exists showing that by using a stamped envelope, response rates can be improved several percentage points over those achieved by sending a business reply envelope (Armstrong and Luske, 1987). Responses also tend to come in more quickly, sometimes providing an advantage of five to seven percentage points prior to sending a replacement questionnaire. Even a large experiment on households that received test U.S. Census questionnaires revealed an improvement of two to three percentage points compared to being sent a business reply envelope, a difference that was on the cusp of statistical significance (Dillman, Clark, and Sinclair, 1995).

When an uncancelled postage stamp is placed on a return envelope, something of monetary value has been given to the respondent. Thus, in an exchange context it is likely to be seen as a positive and helpful gesture that will help the sender to be viewed positively by the recipient. It also encourages trust that the questionnaire is important, perhaps encouraging the respondent to think, "Why else would this person have sent a stamped envelope that I can use for something else?" In addition, it is culturally difficult for many people to throw away something that has any monetary value. As a result, the enclosure of a stamped reply envelope seems likely to encourage its being kept in the household or office until the thank you postcard comes. Although the magnitude of expected effect is small compared to multiple contacts and token financial incentives, it will nonetheless provide an additional contribution to overall response.

Occasionally in surveys that go to business employees, users of the TDM have objected to the use of stamped envelopes, and even business reply envelopes, on the basis that outgoing postage is essentially free to the respondent. Such an interpretation places the stamp in an economic rather than social framework, much like the argument that incentives should be paid after the return of a questionnaire. It is the immediate effect on the recipient's mind set and behavior that is important when enclosing these items of small but real monetary value. Even when surveying organization executives, we use return envelopes with real stamps.

Assembling and inserting the mailout package. The final step of preparing the questionnaire mailout is to assemble and insert the four components—questionnaire, cover letter, token incentive, and return envelope—into the envelope. Often the planning of this step is ignored, leaving it up to the personnel who do it to find the most efficient way. That should not be done.

Two things need to happen when the respondent opens the mailout envelope. All four enclosures need to come out of the envelope at once. In addition, the appealing aspect of each element needs to be immediately visible. Neither of these details should be left to chance.

In cognitive interviews designed to test mailout packages, it has been observed repeatedly that one or more components get left in a mailout envelope when the other components are removed (Dillman, Jackson, Pavlov, and Schaefer, 1998). The questionnaire typically gets removed because of its bulk. If the cover letter is left in the envelope, as is often the case, respondents have no explanation of why the questionnaire has been sent or what they are supposed to do with it. This separation of components happens more often than one might expect as a result of the desire to be as efficient as possible when assembling the mailout. Typically, components are folded (if necessary) individually and placed on top of one another before inserting. As a result, it is easy for something to get left in the envelope and even be discarded before anyone realizes the mistake.

Fear of something getting lost has led to solutions that may compound the problem. One surveyor decided to insert a two-dollar bill into the reply envelope, reasoning that respondents would see it when inserting their completed questionnaires. This unfortunate decision did not take into account the importance of the respondent being able to see the token incentive immediately when opening the envelope. Another decided to hide it inside the pages of the booklet questionnaire where, again, it would not be immediately visible.

Depending upon the size and shape of enclosures, somewhat different solutions are needed to avoid these problems. First, if one is using an 8½″ × 7″ booklet questionnaire (the folded legal size paper method described in Chapter 3) with a standard 8½″ × 11″ cover letter and a 9½″ × 4⅜″ business envelope, the following procedure is recommended. Fold the questionnaire vertically with the front cover on the outside of the fold. Insert the two-dollar bill on top of the folded questionnaire and place the stamped reply envelope underneath. Then, lay all three components on the middle third of the face-up cover letter. The bottom third of the cover letter is then folded up and over these three components and the process is completed by folding the top third of the cover letter down. The entire set of materials can then be picked up easily and inserted into the mailout envelope. The advantage of this type of fold is that all materials must be removed together from the envelope. When the packet is unfolded the respondent will simultaneously see the letter personally addressed to them, the questionnaire, the token incentive, and the reply envelope. This is the desired effect. Another possibility is to use a Z-fold, whereby the bottom one-third of the cover letter is folded upwards over the middle one-third, and the top one-third is folded backwards, so a Z-shape is formed by the paper. Placing the questionnaire and other material behind the top one-third means that they must come out of the envelope with the cover letter, provided the packet is inserted with the bottom of the cover letter touching the bottom of the envelope.

A thin 8½″ × 11″ questionnaire stapled in the upper left corner and printed in the two-column format discussed in Chapter 3 can be similarly folded. However, when initially folded for insertion, it should be done in accordion (or Z-fold) fashion so that the top of the front page displaying any masthead appears on the top of the fold, and underneath the token incentive, before being tucked inside the cover letter for insertion into the envelope.

When flat mailouts are being used for 8½″ × 11″ booklets or U.S. Postal Service priority mail envelopes, the chance of something getting left in the mailout envelope is even greater. Such packaging is necessary when the questionnaire has too many pages to allow folding. In these instances we are likely to use stickers to attach the token incentives to the cover letter or first page of the questionnaire. Attaching the mailout components together with a metal clip is usually not done because of potential envelope tears from postal processing machines.

An important quality control issue surfaces during the folding and insertion process. The use of a questionnaire with an identification number means that it must be sent to the person whose name is on the personalized letter. In addition, the handling of cash (or checks written to individuals) requires that all of the right elements get into every mailout in order for the implementation system to work. This is not a process that can be delegated to an organization's newest hires and forgotten. Like the rest of Tailored Design, it requires attention to detail.

When one is faced with the prospect of assembling thousands of mailouts, rather than hundreds, or when one has access to machine assembly, it is tempting to forego the above methods in favor of separately folding and inserting each item. I have observed many different mechanical processes and urge that anyone considering use of them study prototype results carefully, to control as much as possible whether and how respondents will be exposed to the results. The quality control for getting the right components in every mailout package needs also to be carefully examined before committing to their use.

Selecting The Mailout Date

A large amount of time is often devoted to picking the perfect mailout date for a questionnaire or follow-ups. For the most part, this does not seem to be time well spent. A well designed mailout procedure is going to utilize at least four contacts, and there is little concrete evidence that time of year or day of week have significant effects on response. For example, a series of tests of similar census questionnaires were conducted in spring, summer, and fall, with virtually the same response rates obtained in each of them (Dillman, Clark and Treat, 1994). Even if an ideal time of year existed, it is often impossible to wait for it. The cadence of society has changed significantly so that August is not necessarily a vacation month for most people. Moreover, even if it were, a multiple contact implementation strategy is likely to overlap part of the time the questionnaire recipient is available.

When selecting mailing times, it is useful to focus first on known characteristics of the specific population and on study objectives. In a survey of farmers, periods of planting and harvest should be avoided, which in northern climates almost always means not doing such surveys in the spring or fall. I would generally attempt to do a survey of grade school parents during the school year rather than the summer, because such a survey is more likely to be salient to the parents at that time. In addition, during the school year students and parents are not mentally changing to a new grade level, as typically happens over summer. For targeting homogeneous groups such as these, changing salience and likelihood of being available are prime considerations, something which cannot usually be identified for the general population.

If there is a time of year that appears most conducive to getting surveys filled out, it would seem likely to be January-March. It has been suggested to me that people are more likely to fill out mail-back diary surveys at this time. This may result from people watching or listening to more media at that time and the questionnaires having higher salience as a result, or it may be simply that because of the weather there is less that one can do outside the home. Many years ago I was surprised by a report of a long questionnaire mailed only once to new residents of Alaska that obtained a response rate of over 60% (Rao, 1974). The author reported that the response had also come in over a particularly long period of time, rather than showing the immediate burst of response and decline that was familiar to me. In response to my inquiry as to why, it was explained that long winters, and in this case infrequent trips to the post office, meant that mail was a lot more likely to get read and acted upon.

I have also found it useful to avoid certain holiday periods, especially between Thanksgiving and Christmas. To some extent it can be argued that people are busier and more likely to be away from home. But it is also apparent that the volume of holiday mail creates special problems for the U.S. Postal Service and the chances of delivery mistakes seem higher when volumes are the greatest. Thus, the high volume time of year that Christmas presents to the Postal Service should be avoided when possible.

I have seen no convincing evidence that the day of the week makes a significant difference in return rates. In national surveys it becomes quite difficult to assure delivery on a particular day. Thus, a similar logic is applied to avoiding the day after a holiday or other times when the U.S. Postal Service is likely to be the busiest. Again, it is important to keep perspective on the notion that a well designed mailout strategy attempts many times, in several ways, to get a questionnaire into the household or business and have it attended to by the respondent. In light of these more intense efforts, the day of the week for mailings becomes a minor issue, influenced most by knowledge about the behavior of homogeneous populations and postal considerations.

DESIGNING ADDITIONAL CONTACTS

Without follow-up contacts, response rates will usually be 20–40 percentage points lower than those normally attained, regardless of how interesting the questionnaire or impressive the mailout package. This fact makes a carefully designed follow-up sequence imperative. However, a well planned follow-up is more than a reminder service. Each mailing provides a fresh opportunity for the researcher to appeal for the return of a questionnaire using a slightly new approach. The follow-up procedures include three carefully timed mailings, each of which differs substantially from the others.

The follow-up procedures used with Tailored Design are aimed at paralleling how successful face-to-face interviewers go about persuading prospective respondents to be interviewed. Ordinarily, interviewers introduce themselves, briefly describe the reason for being there, and politely ask for permission to begin the interview, all of which may take as little as a minute or two. If the respondent agrees, the interviewer's attempts to persuade cease and most of the arguments that could have been employed will go unused. Giving the entire sales pitch to someone who is unlocking their screen door is not only unnecessary, but can make an otherwise receptive person hostile. If, on the other hand, the prospect hesitates or says no, the interviewer will likely give more information about the study, offer more reasons why it is important, and emphasize why that particular respondent is essential to the study's success. When difficulties are encountered most interviewers attempt to react to the concerns they detect in the respondent's behavior. Various arguments are used until one is found that seems to work. In the decisive moments that determine whether the result will be reluctant acquiescence or total refusal, the interchange may become emotionally charged. Finally, in a last ditch effort to turn a near certain refusal into a completed interview, interviewers may broach the limits of allowable behavior, perhaps disassociating themselves somewhat from the sponsors of the study and asking for a personal favor that will "help me to get paid." In short, the interviewer's attempts at persuasion are sometimes minimal and sometimes great, often building to a crucial and decisive conclusion.

The design of follow-ups seeks to emulate certain (but not all) aspects of the successful face-to-face interviewer's behavior. Specifically, each follow-up mailing differs somewhat from the one that preceded it as attempts are made to invoke new and more persuasive appeals. Further, the appeals are designed to crescendo, with later follow-ups presenting stronger attempts at persuasion than preceding ones. The obvious difficulty that distinguishes the situation of the face-to-face interviewer from that of the mail researcher is that the latter has little or no feedback from respondents. This lack of feedback, other than the knowledge that a previous message did not get the desired response, makes it impossible to vary the appeal to hit the major concerns of each respondent. At best, the researcher can only guess at the predominant reasons for nonresponse and incorporate appeals to overcome them into each follow-up contact.

The realization that every respondent must be appealed to in the same way leads to our use of a relatively "reserved" approach throughout. Although emotionally intense arguments may sometimes produce results, this approach would appear reckless and offensive when handled over a period of weeks, rather than in a few short and easily forgotten moments on someone's doorstep. Therefore, attempts to increase the intensity of the appeals should escalate only to a level that is not threatening and that clearly stays within the bounds of normal business practice when a voluntary yet important matter of business is pursued.

The three additional contacts that comprise the complete follow-up sequence are listed here, identified by the approximate number of weeks that elapsed after the prenotice letter.

Two weeks: A postcard thank you/reminder is sent to all respondents. It serves both as a thank you for those who have responded and as a friendly and courteous reminder for those who have not.

Four weeks: A letter and replacement questionnaire are sent only to nonrespondents. Similar in appearance to the original mailout, it has a shorter cover letter that informs nonrespondents that their questionnaire has not been received and appeals for its return.

Eight weeks: This final contact is designed to contrast with the previous contacts, either through a different mode (e.g., telephone) or by being sent via priority mail, special delivery, or courier service to emphasize its importance.

THIRD CONTACT: THE POSTCARD THANK YOU/REMINDER

Most people who answer questionnaires, particularly for general public surveys, will do so almost immediately after they receive them. A questionnaire that lies unanswered for a week or more is much less likely to be returned. Repeated studies suggest that nearly half the return envelopes are postmarked within two or three days after being received by respondents. After

that time the number of postmarked returns declines, sharply at first and then gradually.

The inevitably high nonresponse to any mailing is probably due less to conscious refusals than to either unrealized good intentions or the lack of any reaction at all. A questionnaire that is well constructed and accompanied by a carefully composed cover letter is often laid aside with the vague intention of looking at it later. As each day passes without the questionnaire being looked at, it becomes a lower priority, until it is completely forgotten, lost, or thrown away.

Thus, the postcard follow-up is written not to overcome resistance but rather to jog memories and rearrange priorities. It is timed to arrive just after the original mailing has produced its major effect, but before each person's questionnaire has had time to be buried under more recent mail or thrown away. One week is an appropriate interval of time for making an appeal that, if carefully worded, conveys a sense of importance. At the same time, it does not sound impatient or unreasonable.

The choice of a postcard format over a letter is deliberate. It should contrast with the prenotice letter, given that repeated stimuli have less effect than new ones. A letter format was used for the preletter because it took longer for cognitive processing by the respondent, and thus had a greater likelihood of being stored in long-term memory and recalled when the questionnaire arrived. In contrast, the function of a postcard is simply to jog one's memory. The postcard can be quickly turned over and read, rather than lying unopened with the rest of one's mail.

The precise wording of the card reflects still another concern. The first lines simply state that a questionnaire was sent to the respondent the previous week and why (Figure 4.4). This may appear to be a waste of precious space. However, for some respondents this is the first time they learn that a questionnaire was sent to them. The reasons for the original questionnaire not reaching them extend well beyond getting lost in the mail. The previous mailout is sometimes addressed incorrectly or is not forwarded, whereas for some unexplained reason the postcard is. In still other cases, another member of the family opens the envelope containing the questionnaire and fails to give it to the desired respondent. Alternatively, it may have been skipped over when the respondent was looking through the mail and not opened at all. Whatever the reason, telephone calls or letters are received advising the sender that the respondent would be willing to fill out a questionnaire if one were sent to them.

Undoubtedly, most people who do not recall receiving a questionnaire will not bother to ask for one. However, the knowledge that one was sent may stimulate them to query other members of their family (or organization) and lead to its discovery. For others, the card may increase receptivity when a questionnaire finally does arrive in the mail, if it has been delayed for some

Figure 4.4 Example of postcard thank you/reminder (third contact).

July 15, 1999

Last week a questionnaire seeking your opinions about moving to Washington state was mailed to you. Your name was drawn randomly from a list of all new Washington state driver's license holders.

If you have already completed and returned the questionnaire to us, please accept our sincere thanks. If not, please do so today. We are especially grateful for your help because it is only by asking people like you to share your experiences that we can understand why people decide to move here, and the consequences of doing so.

If you did not receive a questionnaire, or if it was misplaced, please call us toll-free at 1-800-833-0867 and we will get another one in the mail to you today.

Sincerely,

Don A. Dillman, Professor and Deputy Director
Social & Economic Sciences Research Center
Washington State University
Pullman, WA 99164-4014

unknown reason. For those respondents who are fully aware of having received the questionnaire and still have it in their possession, the lead paragraph serves to remind them of it by coming quickly to the point.

The second paragraph of the card contains the crucial message that the postcard is designed to convey. People who have already returned their questionnaires are thanked and those who have not are asked to do so "today," a time reference consistent with the importance one wants to convey. Another sentence follows that amplifies the message of how important each recipient is to the success of the study as described in the initial cover letter.

The third and final paragraph is an invitation to call for a replacement questionnaire if one is needed. It is aimed at both those who did not receive the original questionnaire and those who discarded it. A routine statement of appreciation and the researcher's name, title, and signature complete the thank you postcard message.

The respondent's name and address are individually printed on the reverse side, exactly as was done for the envelope of the initial mailout. The name is not repeated on the message side because this would require a further reduction of the print used for the message and, if added mechanically, would exhibit an awkward contrast.

The decision to send this postcard to all questionnaire recipients, whether they have responded or not, is a practical one. About one week after the initial mailing is when the maximum number of returns usually arrive. It is too confusing to attempt to sort returns to save the minor postage costs of the cards. Even in small surveys with a sample of a few hundred, there is usually no time to wait until a significant number of returns are in before addressing the postcard follow-up and still get it mailed on schedule. Another significant advantage of the blanket mailing is that the postcards can be (and should be) printed and addressed even before the first mailout and stored so that this work does not interfere with the often confusing task of processing early returns.

The effect of the postcard reminder varies. In the original TDM, for which it was the second rather than the third contact, response increases of 15–25 percentage points were obtained in five general public surveys from the date that responses started coming in as a result of the postcard effect (Dillman et al., 1974). Response rates prior to that time ranged from 19–27% in these general public surveys, which were conducted in four states. However, many of these additional responses would have come in anyway. Higher initial response rates are typically followed by higher response rates to the postcard.

A large factorial experiment of the preletter–postcard reminder sequence and a stamped return envelope on a national test of census questionnaires (where people were informed in a letter that their response was required by law) showed that the postcard reminder added eight percentage points to the final response rate, compared with six percentage points for a preletter when tested alone (Dillman, Clark, and Sinclair, 1995). The combination of preletter and postcard added 13 percentage points, suggesting clearly that the effects are additive. The use of all three elements added 14 percentage points.

Another experiment has confirmed the importance of having the format of the reminder contrast with that of the prenotice (Ohm, personal communication, August 8,1998). In this experiment, very similar postcards were used for the prenotice and reminder. Independently, each improved response rates, by four percentage points for the prenotice postcard alone and seven percentage points for the reminder postcard alone. In a treatment for which the prenotice and reminder postcards were both used, the response rate increased by seven percentage points, the same as when the reminder was used alone (Ohm, 1998). These results contrast sharply to the additive effect achieved in the census test mentioned above which relied on a prenotice letter and reminder postcard. These experiments provide additional evidence that contrasting stimuli are better for response than are repeated stimuli.

Fourth Contact: The First Replacement Questionnaire

There is a marked difference between the content of the fourth contact and the three that preceded it (Figure 4.5). This letter has a tone of insistence that the previous contacts lack. Its strongest aspect is the first paragraph, in which recipients are told that their completed questionnaire has not yet been received. This message is one of the strongest forms of personalization, communicating to respondents that they are indeed receiving individual attention. It reinforces messages contained in three previous contacts that the respondent is important to the success of the survey.

Most of this letter is devoted to a restatement of each respondent's impor-

Figure 4.5 Example of cover letter with first replacement questionnaire (fourth contact).

Washington State University

Social and Economic Sciences Research Center

Wilson Hall 133
PO Box 644014
Pullman, WA 99164-4014
509-335-1511
FAX 509-335-0118

Date → July 29, 1999

Inside address → L. T. Hansen
2121 Lincoln Way East
Uniontown, WA 99962-2056

Feedback: We've not heard from you → About three weeks ago I sent a questionnaire to you that asked about your experiences of living in Washington state. To the best of our knowledge, it's not yet been returned.

Others have responded → The comments of people who have already responded include a wide variety of reasons for moving to (or back to) Washington. Many have described their experiences, both good and bad, in trying to find work. We think the results are going to be very useful to state leaders and others.

Usefulness of your response → We are writing again because of the importance that your questionnaire has for helping to get accurate results. Although we sent questionnaires to people living in every county in the state, it's only by hearing from nearly everyone in the sample that we can be sure that the results are truly representative.

Are you eligible?: More feedback → A few people have written to say that they should not have received the questionnaire because they no longer live in Washington or that they moved here before 1990. If either of these concerns apply to you, please let us know on the cover of the questionnaire and return it in the enclosed envelope so that we can delete your name from the mailing list.

Confidentiality → A comment on our survey procedures. A questionnaire identification number is printed on the back cover of the questionnaire so that we can check your name off of the mailing list when it is returned. The list of names is then destroyed so that individual names can never be connected to the results in any way. Protecting the confidentiality of people's answers is very important to us, as well as the University.

Voluntary → We hope that you will fill out and return the questionnaire soon, but if for any reason you prefer not to answer it, please let us know by returning a note or blank questionnaire in the enclosed stamped envelope.

Sincerely,

Real signature → Don A. Dillman
Don A. Dillman
Professor and Deputy Director

P.S. If you have any questions, please feel free to contact me. The toll-free number where I can be reached in Pullman is 1-800-833-0867.

tance to the study in terms quite different from those used in previous mailings. It conveys to the recipient, as a means of encouraging response, that others have responded. The social usefulness of the study is also reemphasized, implying that the usefulness of the study is dependent on the return of the questionnaire. The recipient is also reminded which member of the household is to complete the questionnaire. The letter is completed by mention

of the enclosed replacement questionnaire, the usual note of appreciation, and the now familiar blue ball-point pen signature. It is sent by first-class mail in the same type of envelope used for the initial mailing.

In developing the obviously stronger tone of this letter, it is important neither to over- nor undersell. It needs to show a greater intensity than preceding letters, but not be so strong that potential respondents become disgruntled. The letter appears sterner and a little more demanding when considered in isolation than when read in the context of having already been asked to make a significant contribution to an important study. If the study lacked social importance or had a frivolous quality about it, the letter would probably seem inappropriate to the respondent and could produce a negative reaction.

Ordinarily this letter is not produced until questionnaires are returned from previous mailings in considerable quantity. The lapse of time provides an excellent opportunity to gather feedback on problems encountered by respondents. For every respondent who writes to ask a question, it is likely that many more have a similar question but do not take time to write. Thus, a postscript to the follow-up letter is sometimes added in hopes of answering questions that may have been suggested to the researcher by such feedback. The postscript also suggests that the study is important by indicating that the researcher is examining early returns and trying to deal with respondent concerns.

It is essential to send a replacement questionnaire with the follow-up letter. The three weeks or so that have elapsed since the first questionnaire mailing make it probable that the original questionnaire, if it has not been lost or thrown away, will be difficult to find. In one of my early studies I made the mistake of omitting a replacement questionnaire. Not only did we get a considerable quantity of cards and letters requesting a copy of the questionnaire to which it was necessary to respond, but even after this effort the total response was only half that usually obtained for the second follow-up (Dillman et al., 1974).

A replacement questionnaire creates certain processing challenges. It is possible that someone may fill out two questionnaires instead of only the one intended, or perhaps give it to a spouse or friend to complete. Although this occasionally happens (as evidenced by returns with duplicate identification numbers and different handwriting), the frequency is so low as to be of little concern. Perhaps the greatest difficulty rests with those respondents who did fill out and return the earlier questionnaire, only to be informed that the researcher did not receive it. This underscores the great importance of an accurate identification system and the need to hold the follow-up mailing to the last minute so that respondents whose questionnaires have just been received can be deleted. Scheduling this follow-up a full two weeks or slightly longer after the postcard reminder allows responses to dwindle to a small trickle, considerably lowering the chance that someone who has sent in a questionnaire will receive another one. Further, the additional time and subsequently smaller number of required follow-ups reduces postage and clerical costs considerably.

FIFTH CONTACT: THE INVOKING OF SPECIAL PROCEDURES

This request, the final effort to elicit a response, exhibits a greater overall intensity than any of those which preceded it (Figure 4.6). However, this is not because of the wording of the cover letter, which in fact is somewhat softer than that of the preceding one. Rather, its insistent nature stems from the simple fact that it is a fifth request, and it is being made by special mail or by telephone. Because these factors raise the intensity to a high level, the relaxed wording of the cover letter emphasizes explanations of why this additional follow-up is sent. The now familiar messages of social usefulness and individual importance are repeated once more, but in words different from any used previously.

The important way in which this contact differs from those that precede it is in the packaging and delivery of the request. If one is considering simply sending a third copy of the questionnaire using the same type of envelope and another letter on the same stationery, it is hard to make this stimulus appear different from the second and fourth mailings. From an exchange perspective, we expect that repeating any stimulus will decrease its effect each time it is used. After all, the stimulus failed to produce a response from the recipient the previous two times it was used. Thus, it seems unlikely that the recipient will get past the outward appearance to note the changes in the wording of the letter. The delivery of this final contact differs from all previous contacts because of the packaging, the mode of delivery, and the speed by which it is delivered, all of which may be made noticeable before the letter is even opened. The effect being sought is to increase the perception of importance as a legitimate request.

Certified Mail

There are several different ways in which this perception of important goals can be accomplished. One method used with the original TDM was to send the final request by certified mail. Certified mail requires that the person who receives it sign for its delivery, thus acknowledging that it has been received. Various levels of certification can be used at varied costs, requiring, for example, that someone at the address sign for delivery. It can also be specified that the person whose name is on the envelope sign for it. In addition, one can request a return receipt to assure that it has been delivered. Such information can be helpful in resolving coverage issues.

The effectiveness of certified mail has been shown to be substantial. Original tests in five statewide surveys of the general public using certified mail as a fourth and final mailing raised response rates from an average of 59 to 72%, an increase of about 13 percentage points. The certified mailing also produced a greater *relative* return; that is, the percentage of surveys returned in each mailing surpassed that of any mailing that preceded it. Its relative return was 33% of the letters mailed, compared to a range of 24 to 29% of the number mailed in the earlier mailings. These results are even more impressive when

Figure 4.6 Example of fifth and final contact sent by special mail.

Washington State University
Social and Economic Sciences Research Center

Wilson Hall 133
PO Box 644014
Pullman, WA 99164-4014
509-335-1511
FAX 509-335-0116

Date	→	September 5, 1999
Inside address	→	L. T. Hansen 2121 Lincoln Way East Uniontown, WA 99962-2056
Connection to previous mailings	→	During the last two months we have sent you several mailings about an important research study we are conducting for the state of Washington.
Purpose and usefulness	→	Its purpose is to help state agencies understand the reasons people are moving to Washington state, and their experiences after coming here that might be relevant to improving state services.
Time is running out	→	The study is drawing to a close, and this is the last contact that will be made with the random sample of people who we think, based on driver's license records, moved here in the last year.
Explanation for special contact	→	We are sending this final contact by priority mail because of our concern that people who have not responded may have had different experiences than those who have. Hearing from everyone in this small statewide sample helps assure that the survey results are as accurate as possible.
Confidentiality	→	We also want to assure you that your response to this study is voluntary, and if you prefer not to respond that's fine. If you are not a recent mover to Washington state, and you feel that we have made a mistake including you in this study, please let us know by returning the blank questionnaire with a note indicating so. This would be very helpful.
Thank you	→	Finally, we appreciate your willingness to consider our request as we conclude this effort to better understand job, living, and other issues facing new Washington state residents. Thank you very much.
		Sincerely,
Real signature	→	Don A. Dillman Professor and Deputy Director

we realize that those who responded to it had ignored three previous mailings and therefore might be classified as "hard-core holdouts."

It was also found that the certified mailout picked up greater portions of older, less-educated, and lower income people, those most often missed by mail questionnaires. Thus it appeared that nonresponse error on those variables was reduced by this intensive follow-up. Another documented benefit of the certified letter was that it often elicited notes from people explaining why they were ineligible for the study, thus improving the coverage aspects of the sample frame.

Use of a similar certified mailing in the Netherlands suggests that certified mail may interact with personalization (de Leeuw and Hox, 1988). Whereas the use of personalized letters with a certified follow-up resulted in a 71% response rate, non-personalized letters that were certified produced only a 61% response rate, and a personalized, noncertified treatment produced only a 53% response rate. Thus, part of the effectiveness of certification may stem from respondents knowing that the letter is addressed to them personally, conveying individual importance to the study outcome.

Alternative To Certified Mail

For several reasons, we no longer use certified mail except in special circumstances. When people are not at home a certified letter cannot be left in the mailbox. Instead, a U.S. Postal Service message is left indicating that an attempt to deliver a certified letter was made. Usually, the individual may either sign that note and leave it for delivery the next day or go to the post office and pick it up. We consider it undesirable both from an exchange perspective (increased personal costs) and concern for the welfare of respondents to require people to go to the post office, which some recipients may be inclined to do. In addition, many alternatives to certified mail are now available. They include courier delivery by one of several private companies, such as Federal Express or United Parcel Service. The U.S. Postal Service offers priority mail delivery and special delivery, neither of which requires a signature. When telephone numbers are available, a telephone follow-up can be substituted. The sole situation in which certified mail is recommended for use is when one is confident that someone is always present, as in an office, when postal deliveries are made.

An early study by Moore and Dillman (1980), which tested the use of special delivery and telephone follow-up calls as individual alternatives to certified mail, found that both alternatives worked about the same as certified mail (no significant difference), and both worked much better than another first-class mailing. We have observed many other tests of priority mail by courier, in which an increment of additional response is attributable to use of courier or two-day priority Postal Service mail.

Sending this final contact by special mail requires that out-of-the-ordinary

mailing procedures be used, which sometimes includes different mailing forms and labels. If one is contemplating using a particular service it is imperative to talk with the provider. These delivery services are normally not set up to receive large numbers of such mailings at one time, and computerized procedures may be available for streamlining the process. In addition, costs may vary depending upon how many questionnaires are being dispatched. The variation in charges by distance, time of day that delivery is requested, whether a special promotional offer is being made, and whether the sponsor has a special contract or volume discount with the provider can affect both the possibilities and the costs. Current costs can range from about two dollars per questionnaire up to as much as $15, or even more in the case of extremely long distances or when the fastest possible delivery time is selected.

Consequently, it is important to remember the total effect one is attempting to accomplish with this mailing. A different look is achieved by using a different outside container than in any previous ones. An example is the light cardboard 9 × 12 inch carton used by some couriers, within which the cover letter and envelope are inserted differently than in previous mailings (e.g., not folded into a regular business stationery envelope). We are also depending upon the special handling to convey that an attempt for rapid, assured delivery is being made. These attributes convey to the respondent that the survey is important. Finally, these external attributes are depended upon to get the recipient to read the letter, which differs significantly from the previous letters and includes an explanation of why the special contact procedure was used. In addition, enough time is allowed to elapse between the fourth and fifth contact so that little, if any, overlap occurs between this mailout and late returns from the previous contact.

A Telephone Alternative

Some sample lists contain telephone numbers as well as mailing addresses. In these instances a telephone call may be used in place of the special mailing to encourage return of the mail questionnaire. A script is provided to interviewers that informs respondents that a questionnaire was sent to them previously, and explains that the call is being made to see if they have any questions about the study. They are also encouraged to complete and return the survey. In some cases they may be given the opportunity to complete the survey on the telephone (see Chapter 6) or told that another one can be sent to them if the previous one has been thrown away.

The switch in modes provides considerable contrast to the repetitive mail contacts and allows for immediate feedback from the respondent. Telephone follow-ups are preferred when the number of ineligible respondents is likely to be high. Typically, such recipients of questionnaires are more likely to ignore mailed requests to complete it, and obtaining that information by telephone allows the surveyor to drop them from the sample frame. Telephone calls have also been found to be effective from the standpoint of reassuring people who do not understand the nature of the study and do not want to participate, as is sometimes the case with elderly respondents. The phone call provides an opportunity to thank people for their consideration and assure them that they will not be contacted again.

When such a contact is used it is important to make the call within a week after the fourth contact arrives by mail, in order to increase the likelihood that the questionnaire has not been thrown away. It is also important that the interviewer be prepared to listen to concerns the respondent might have, and be able to answer questions about the study and the questionnaire. This is not the type of call that can be turned over to someone instructed only to read a simple reminder notice to the questionnaire recipient.

DYNAMICS OF THE IMPLEMENTATION PROCESS

There is more to implementing a mail survey than the ordered series of events described in this chapter. Once the first mailing is dispatched, feedback from respondents, only some of which can be anticipated, requires considerable attention from the researcher. Sometimes on-the-spot modifications of the implementation process are necessary. Such concerns extend through all five contacts.

HANDLING UNDELIVERED QUESTIONNAIRES

Usually one of the initial problems to present itself is the return of undelivered questionnaires. The first solution to this problem is to do everything possible to prevent it from happening. Commercial software is now available for changing addresses so that they comply with current postal regulations. For example, the address "S.W. 705 Marcel St." will be changed so that the number comes first, as "705 S.W. Marcel St." Some software of this nature can also be used to group addresses by zip code for easier handling by the postal service. The use of such software can significantly reduce the number of undelivered questionnaires.

Immediate attention often makes remailing possible and prevents wasting scheduled follow-ups. The reasons provided by the U.S. Postal Service for nondelivery generally fit into three categories. The first relates to a change of residence by respondents. Occasionally people move without leaving a forwarding address. Most people do leave a forwarding address, but U.S. Postal Service regulations keep it on record for only 18 months. If the move was within the same city or county, it is sometimes possible to locate the person by consulting the local telephone directory or other listings. Through these various efforts it is often possible to remail a sizable portion of the questionnaires that were not forwarded.

The second reason for undelivered questionnaires is categorized here as "possible errors." This categorization seems appropriate because the main causes for "addressee unknown," "no such street," "no apartment number," "no residential delivery," and so on are clerical errors. When a questionnaire is returned for any of these reasons, processing procedures and sample sources need to be checked to see if an incorrect address was used. If this procedure does not identify the problem, then an attempt is made to locate the respondent's telephone number and to call the household or business, thus reverting to the procedures used for those known to have moved. Some problems are unique to certain surveys. In one of our statewide surveys nearly all the letters for one rural community were returned. The reason for this problem was that the addresses reported in the sample list were different from those used by the U.S. Postal Service. A call to the local post office helped solve the problem.

A third category of problems reported in the notation system used by the U.S. Postal Service is that of letters that are refused or unclaimed. Generally, refusals are not a problem until later mailings, when respondents recognize the envelope and presumably choose not to accept delivery. The questionnaires that are unclaimed from earlier mailings may have simply lain in the mailbox for a period of time without being picked up. This result suggests that the person may be temporarily gone, and remailing at a later time is often effective. However, some are clearly refusals, or the respondent chooses to leave the envelope in the mailbox. Finally, the U.S. Postal Service marks letters of persons who are deceased with that notation and returns them to the sender unless other arrangements for handling the deceased person's mail have been made.

The success of our tracing procedures varies a great deal. As one would expect, such procedures work best when sample lists are current and the number of undelivered letters is low. The remailing of questionnaires requires establishing new mailout dates for follow-up correspondence, creating additional work for the implementation of the study. However, the end result can be a significant increase of several percentage points in the final response rate.

HANDLING RESPONDENT INQUIRIES

Another activity for which the researcher must be prepared is to answer respondent inquiries and comments. Each mailing is likely to bring reactions other than a completed questionnaire from a few recipients. Among the more frequent are:

- The person you want is out of town for a month and cannot do it until she returns.
- I would do the questionnaire except for the identification number on it.
- I would answer except for the personal questions, which I don't think are any of your business.

- I have only lived here for a few months, so I don't know enough about this community to answer your questionnaire.
- I'm too old, but my daughter will fill it out if you really need it.
- I filled out a questionnaire like this one six months ago and don't want to do it again.
- Tell me how you got my name, and I'll do your questionnaire.

These comments are acknowledged, and our response to these various inquiries is determined by both philosophical concerns and response considerations. Respondent questions, even strange ones, deserve a response, just as the request to complete a questionnaire deserves to be honored. Thus, a point is made to answer each of them. In general, one should respond as a well-trained interviewer would, attempting to convince people of their importance to the study. It is explained why an identification number is used, why it is important to have old people as well as young people in the study, why the daughter would not be an acceptable substitute, and how the recipient's name was obtained. The most appropriate approach is to be straightforward and honest and to thank them for writing or calling.

Letters are also written by second parties on behalf of the questionnaire recipients. The most common of these indicate that the desired respondent is physically incapable of completing the survey, usually because of the infirmities of old age. Another fairly typical request comes from the spouse of the requested respondent, who reports that the person is temporarily out of town. These letters are responded to in much the same way that respondent inquiries are answered. Acknowledgment letters then go to the second parties who reported that the desired respondent cannot complete the questionnaire. The aim of these letters is to thank them and also to assure them that the person's name is being removed from the sample list, if that action is appropriate.

Still another kind of letter I have grown accustomed to seeing is from individuals who have simply heard about the study, perhaps because a friend showed them a questionnaire. These letters sometimes come from media people or from those who would find the results useful in their work. These inquiries are handled in as helpful a way as possible, consistent with the study objectives. It is particularly important to be prepared in large-scale surveys with a policy for handling requests for interviews or news stories. An appropriate approach is to respond to such requests in much the same way one would answer respondents' questions, emphasizing the social usefulness of the study, the importance of every individual responding, and so on.

EVALUATING EARLY RETURNS

When returns begin to come in, one of the first priorities is to open the return envelopes and scrutinize the questionnaires. Besides providing for the quick location of questions to which responses must be given in follow-up letters, certain problems can be identified. For example, in some studies it is learned that questionnaires were printed in a way that produced a tendency for pages to stick together. In one study this meant the return of many questionnaires for which sets of facing pages had been skipped. The immediate identification of this problem led to instituting a procedure whereby the missing two pages were photocopied, marked with the appropriate identification number, and returned to the respondent with a personalized note stating, "In our routine check for completeness we noticed two pages were missed. It appears they may have stuck together and thereby been inadvertently missed . . . " Nearly two-thirds of those contacted returned the missing pages, significantly improving the quality of data. Usually, problems of this nature are not anticipated, making the close monitoring of early returns essential.

Each survey is different, with the survey topic, population, and sampling procedures all contributing to the existence of a unique set of circumstances. The important conclusion is that implementation activities do not simply take care of themselves once the survey questionnaires are in the mail. Much remains to be done.

WHAT TO DO WHEN MAXIMIZING RESPONSE QUALITY SEEMS IMPOSSIBLE

The original TDM and its successor, Tailored Design, are designed as systems of attributes whose aim is to maximize the likelihood of achieving high quality results. However, the reality of the survey world is one of cost constraints and data quality trade-offs. Sometimes, doing the best one can do is not possible.

These pressures are experienced in somewhat different ways when doing self-administered surveys than typically happens in interview surveys. Once the interview questionnaire has been constructed and implementation started, the issue typically becomes one of number of call-backs to make and how to accomplish refusal conversions. Stopping with two or three call-backs or even no call-backs and not attempting to convert refusals inevitably results in low response rates. The decisions on mail surveys involve a quite different matrix of considerations. In the face of cost constraints, where should one cut back first: Number of contacts? Level of financial incentive or even whether to use one? Depersonalization of the mailings? Decreasing sample size and reallocating resources to fewer potential respondents? Or something else? The issue becomes one of how to optimize the allocation of resources.

Recently, I was asked to comment on the proposed procedures for a survey of more than 10,000 people. The sponsor had funded the study on the assumption that three mailings would be made, each of which would include a replacement copy of the questionnaire. A further look at the proposed procedures revealed that the cover letters for each of the three mailings were, except for the first paragraph, virtually identical. The funds had been allocated, and any changes in procedures would have to be funded by cutting back on the planned procedures.

This situation is characteristic of hundreds I have been faced with since publication of the original TDM. Surveyors become boxed in by an initial decision that specifies procedures and/or budget. In this situation, several strategies could have been followed to improve the design of the proposed study. First, it appeared that the third mailing would have very little impact relative to cost. Virtually the same stimulus had been sent twice before. The sponsor then proposed to abandon the third mailing and instead offer a lottery prize for respondents or give people who returned the questionnaire a five-dollar payment. I discouraged these changes because of lack of evidence that either approach would work.

The sponsor also contemplated the possibility of abandoning the third contact in exchange for sending a preletter and postcard reminder. Because the lengthy questionnaire had to be mailed flat at a cost of nearly five dollars for printing, paper, and postage, such a trade-off was possible. That would have resulted in four contacts rather than three. In addition, the preletter could have been sent from the government agency to respondents, thus invoking legitimate authority. It was also suggested that converting to a one- or two-dollar incentive might have been done. However, to do that would reduce funds so that only two mailings of any type could be made. Consideration was also given to including a minimal token incentive of only one dollar and using the balance of the money saved by foregoing the final but repetitive mailing in favor of sending a postcard reminder.

Another approach to the problem of finding resources for improvement would have been to assess the planned survey in light of expected error outcomes. For example, another method of producing savings is to reduce the sample size and devote those saved resources to improving response quality from fewer sample units. Such suggestions are often met with strenuous objections, but strictly from a sampling error standpoint, obtaining a 30% response from a sample of 10,000 (3,000 questionnaires) is about the same as obtaining a 50% response from a sample of 6,000 (also 3,000 questionnaires). However, the reduction of nonresponse error might be substantial. We also noted in this case that an exceedingly long questionnaire was being used, a factor which by itself would tend to reduce response and perhaps increase measurement error. Reducing the size of the questionnaire could have produced postal and processing savings that could have been applied to achieving better responses.

In sum, when faced with a description of a poorly designed set of survey procedures and the lament that the budget has been determined, so there is nothing that can be done, my usual response is, "Are you sure?" and to ask for details. I then attempt to redesign the procedures by relying on whatever research is available to assess the consequences of likely changes and employ

the social exchange calculus offered in Chapter One, in order to evaluate the fit of different elements with one another. In addition, I try to bring to bear considerations of all four types of survey error: measurement, coverage, sampling, and nonresponse. Thus, I assess the inclusion or exclusion of each factor on the basis of whatever demonstrated evidence is available and/or where it seems to fit theoretically into an overall response strategy. I also assess it with regard to the consequences for the four sources of error I am seeking to minimize. Doing triage on poorly designed surveys, difficult as it sometimes becomes, is as much a reality of Tailored Design as constructing an ideal survey design in the first place. So, what was the outcome? In this case, the sponsor abandoned the third mailing in favor of the prenotice and reminder. In addition, the cover letters were significantly revised. Consideration of other issues was left for another time.

CONCLUSION

A few years after the first edition of this book was published, I was informed that a prominent scholar visiting my university was looking for me, and that I should go talk to him. When I finally located him he expressed his appreciation for coming to see him, said he had read my book, and then abruptly asked, "What I wanted to know was whether I can solve my response rate problem for mail surveys by putting several small stamps on the outgoing envelope." I no longer recall my exact answer (which should have been an emphatic "no") but the impact of the question still lingers. Like many others, he was looking for a magic bullet.

Improving response to self-administered surveys and maintaining low amounts of error are not goals one can attain by selecting a single technique and scrupulously applying it to every survey. Respondent-friendly questionnaires, multiple contacts, a special final contact, a real stamp on the return (not outgoing) envelope, personalization of correspondence, prepaid incentives, and many smaller details all have a role to play in improving response to self-administered surveys. Selecting one technique for special attention while ignoring most of the others makes no more sense than trying to get a nutritious diet by eating only carrots or some other specific food.

In this chapter I have described details for designing all aspects of the implementation process and discussed how each aspect might be shaped to improve the quality and quantity of response. Yet, the elements described here must be considered somewhat tentative. Though sufficient for many and perhaps most survey situations, they can be tailored (i.e., further refined in advantageous ways to take into account survey content) to the population and the survey situation in ways that improve their effectiveness. They may also need further refinement based upon coverage and sampling situations, the topics to which I now turn.