DOCUMENT RESUME

ED 402 320 TM 025 812

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TITLE Reviewing the Research on Mail Survey Response Rates: Descriptive Study.
PUB DATE Apr 96
NOTE 42p.; Paper presented at the Annual Meeting of the American Educational Research Association (New York, NY, April 8-12, 1996). For related papers, see TM 025 810-812.
PUB TYPE Reports - Evaluative/Feasibility (142) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Comparative Analysis; Followup Studies; *Incentives; *Mail Surveys; Meta Analysis; *Research Methodology; *Response Rates (Questionnaires); Responses
IDENTIFIERS *Descriptive Research

ABSTRACT

One approach to examining the findings of multiple studies is descriptive. This descriptive review of the research on increasing the response rates to mail surveys is based on studies also subjected to a meta-analysis. An initial narrative review identified the studies to be used in both analyses, and results will allow the possibility of comparing results from different research approaches. Independent variables were listed for each study, and the studies were classified and grouped into tables. Review of these tables indicated that some variables produced consistent results, others, mixed results, and others were not extensively studied. Incentives enhanced response rates, but the necessary amount and type were not determined. Enclosed incentives were preferable to those only promised or offered. Advance and followup contacts increased response rates, and university and familiar sponsors tended to produce better responses than marketing firms or those that did not identify sponsoring organization. The effects of personalization and questionnaire format appeared too complex to state simply, with mixed results being found for a number of survey aspects. This descriptive type of review offers insight into the true status of the research. (Contains 21 tables.) (SLD)

# Reviewing the Research on Mail Survey Response Rates:

# Descriptive Study

by

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**Paper presented at the Annual Meeting of
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**April 9, 1996**

**New York**

## Introduction

There are various approaches to examining the findings of multiple studies dealing with the same or similar variables. The first such efforts were necessarily descriptive in nature. More recently, the availability of computers and software to accomplish more sophisticated analyses, such as meta-analysis, have been used. Meta-analysis is limited in one sense because it relies on having a sufficient number of studies to conduct the analysis. Variables that have not undergone extensive research may not be included or may be grouped with other studies of similar variables, thus losing their distinctive nature. According to Cooper (1989), "the basic premise behind the use of statistics in reviews is that a series of studies have been identified that address an identical conceptual hypothesis" (p. 84). It can be observed that in many areas the authors of the survey research studies differed in their definitions of the independent variables. Cooper also points out that combining control group studies with those using comparison groups that receive different treatments, as might be done in statistical analyses, may mask some differences due to the type of condition with which a treatment is compared. Meta-analysis does, however, have the advantage of being able to examine the quantitative effect of certain variables, while this would be difficult in a descriptive review. This paper follows the descriptive approach, using the same studies that form the basis of a meta-analytic study (Green & Hutchinson, 1996), thereby, possibly for the first time, allowing comparison of results of the two methods while controlling for the data on which the reviews are based. Although Armstrong (1990) compared results of his meta-analysis with Harvey's (1987) descriptive approach, Armstrong limited his analysis to experimental studies, unlike Harvey.

Pevious integrative reviews of research on factors affecting response rates in mail surveys, particularly the descriptive reviews, have seldom provided sufficient information for researchers to attempt to replication (Boser & Clark, 1993). Differences in methods, variables included, and variable definitions (as well as lack of variable definitions) have made comparison of results of the various reviews less than precise (Boser & Clark, 1995). Harris (1982, 1984) has proposed that reviews be reported with the same detail as single research studies. Many of the descriptive reviews (Duncan,1979; Harvey, 1987; Houston & Ford, 1976; Jobber, 1986; Kanuk & Berenson, 1975) are problematic in that they offer little or no information about the method used for finding the studies or the criteria used in determining which studies should be included. Linsky (1975) attempted to include all relevant studies, but without computerized databases, he was ambitious to attempt such an endeavor. Another possible limitation of any review, the present one included, is that studies which did not yield significant differences may be underreported because of difficulty in finding publications that will accept them (Cooper, 1989).

## Procedures

After the articles to be included in the study were determined, information regarding each article was recorded on a 5 x 8 card. The reference listing was affixed to each card, then the following information was included when it was provided within the article: independent variable(s), target

population, source of sample, sample size, group size(s), response rates at each stage of the survey that were presented, questionnaire format and number of questions, topic, sponsor, advance contact and/or followups that were used. Some articles presented more than one independent study, and it was not unusual for a single study to have more than one independent variable. Not all studies within an article, nor all variables, were used if sufficient detail was not present in the description.

In some cases the sample size reported was adjusted for nondeliverables by the authors of the studies, in others it was not. In studies where response rates were presented for an experimental group and a control group that did not receive the treatment accorded the experimental group, the response rates for both groups were recorded initially, subsequently using the control group response rate to determine the direction and amount of difference between the experimental and control groups (E - C).

Some study authors differentiated between completions (completed questionnaires) and returns. For this review, the return rate is used when provided, rather than completion rate. In examining the change in response rate after subsequent mailings, various procedures were used by study authors for determining and reporting the percentage of response. The cumulative response rate is used for subsequent mailings unless the N given is the number of nonrespondents to which a particular manipulation was applied.

Creating Tables

After the information was recorded for each study, the independent variables were listed and the studies were classified. This process may lack objectivity, but since the information is presented in table form for the readers, they are free to form their own judgment. It is desirable to have more than one reviewer independently classify the studies and compare their results. In listing the information in the tables, the author was particularly influenced by two previous reviews (Linsky, 1975; Kanuk & Berenson, 1975).

If all survey participants were assigned to experimental or control groups (or comparison groups), of approximately the same size, only the N for the study is reported. If a particular comparison does not involve all groups in the study (such as Watson (1965, who had a single control group and multiple individual treatment groups) or if groups differ considerably in size, the number of individuals in the experimental and control (or comparison) groups are reported. Individual variable effects were isolated whenever possible. This was not always possible, most notably in studies dealing with personalization, so the researcher's interpretation of personalization had to be defined for each study.

Unless otherwise noted, in studies reporting on the effects of prior commitment and advance notice, the response rate is the number of respondents as related to the number in the original group. If the author contacted 500 individuals by phone but sent questionnaires only to those who agreed to participate, nonparticipation was reduced prior to mailing of questionnaires. Using the percentage of those who were sent questionnaires would artificially inflate the response rate in comparison with

individuals sent advance notices through the mail and who were not given an option of refusing to participate.

The population is identified as general public when names were drawn from city directories or phone listings unless the topic of the survey focused on issues related to their residency or phone services. Monetary amounts have not been adjusted for inflation in studies of incentives. In the tables, the studies are usually listed alphabetically, although within some tables there are subclassifications related to the specific variables or comparisons being made. Studies used to examine the effects of followup mailings included only those that specifically included a control or comparison condition related to the sending of the followup.

In compiling the data for this review, it has become obvious that followup contacts do influence results in some cases. Knowing if followups were used (and the number of them), then, becomes an important piece of information for a researcher in evaluating the results of an experimental manipulation. Unfortunately, this information is not always reported. Some variables have what this researcher has termed a Differential Followup Effect, and others have a Followup Reversal Effect. One or more followups have a differential effect when the followup mailings affect groups differently resulting in either an increase or a decrease in the difference between cumulative response rates of the groups. Several examples are cited throughout this review. The Followup Reversal Effect occurs when the difference between cumulative response rates shifts after a followup (or more than one followup) so that the group that originally had the higher response rate becomes the one with the lower response rate.

Because some tables require more than a single page, all tables have been relegated to the Appendix so as to not disrupt the text. It is not that they are less important than the text, for they are, in the perception of the author, more important than the author's attempts to analyze and draw meaning from them. The major contribution of this entire effort may well be the bibliography of research studies.

## Findings

### Procedural and Cover Letter Variables

#### Incentives

Incentives are items that are either enclosed, promised, or offered to individuals in an effort to induce them to participate in the survey. Some researchers even consider using colored paper for the questionnaire, sending an advance notice or providing a stamped return envelope as an incentive. Probably the most widely researched topic in the area of survey methodology is the use of incentives. Meta-analyses have been conducted on this factor alone. Almost without exception, incentives improve response rates (see Tables 1 through 4). In this review, there has been no attempt to adjust incentive values to current amounts, thus any conclusions about specific amounts of incentives would be ill advised.

Incentives have frequently been compared to control conditions in which no incentives were used. Comparisons have been made between incentives that are enclosed with those that are promised upon receipt of completed questionnaires. Nonmonetary incentives have been investigated as well as those involving money in some form.

Enclosing money almost universally produces higher response rates than when no money is sent (see Table 1). In general, larger cash incentives produce higher response rates than smaller amounts of money. Promised incentives usually, but not always, yield higher response rates than when no incentive is promised. In direct comparisons, enclosed incentives usually produce higher returns than promised returns of the same value (see Table 1d). The value of a summary of the survey results as an incentive is questionable and may lower response rates (see Table 2). Almost all other nonmonetary incentives produce higher returns than no incentive (see Table 3). Cash is usually more effective than offering respondents a chance to win a larger amount or to have a donation made to charity. Even waiting until the followup mailing to nonrespondents to include an incentive is also effective in increasing response rates, when compared with no incentive conditions, and less costly than sending the incentive to everyone on the first mailing. Increasing the number of incentives (e.g., cash plus promised donation to charity, a pencil plus coffee packet, followup postcard plus offer of results) usually increases the impact on response rate.

Followups

Another variable that has an almost universal impact on response rates is the use of followups. Followups may vary in number and type (postcards, letters, phone reminders, replacement questionnaires). In all but one instance, the group sent the followup(s) had a higher response rate than the control group that was not sent the followup(s) (see Table 5). Not only does the response rate increase with the number of followups, but also followup mailings that include questionnaires generate higher returns than letters alone (Futrell & Lamb, 1981; Swan, Epley & Burns, 1980). Because of differences in procedures (timing, type of followup) and lack of specificity in defining the procedure (i.e., "reminder") it is not possible to further identify the effectiveness of specific techniques.

Advance Contact

Another technique that produces almost unanimous improvement in response rate is utilization of some form of advance contact (also called prior contact, preliminary notification, preletter, etc.). That advance contact may come in the form of a telephone contact, postcard or letter mailed to the potential respondent prior to the mailing of the questionnaire. In only three instances did the advance contact result in a lower response rate than the control group that was not contacted in advance (see Table 6). Phone contacts were most effective in producing an average response rate of 78.5%, 16.4% higher than control groups not contacted. Advance postcards were associated with an average response rate of 47.4%, compared with 44.3% for letters.

Several comparative studies found higher response rates for advance contacts by phone than by letter or postcard (see Table 6e). Two studies also compared the effectiveness of advance contacts with a followup (see Table 6f). In both studies (Jones & Lang, 1980; Kephart & Bressler, 1958), the followup produced a higher response than the advance contact. For Jones and Lang, using both the advance postcard and reminder resulted in another increase of over 5%, while in Kephart and Bressler, no advantage was gained by sending the advance notice when a followup was sent. As was true of incentives, increasing the overall number of contacts has been shown to increase response rates.

**Organizational Sponsorship**

Surveys sponsored by universities produced the highest response rates in eight of the nine studies in which they were used, the lone exception being Greer and Lohtia (1994), in which honor society sponsorship exceeded university sponsorship (see Table 7). A sponsor with which the respondents were familiar (i.e. Business Week magazine in a survey of Business Week subscribers, company headquarters in a survey of temporary employees) also produced a higher response rate than a research firm. Research firms had the lower/lowest response rates except in the Hawkins (1979) study, when a fictitious research firm had a higher response rate than the actual sponsoring firm for a department store. Even the complete absence of a sponsor produced a higher response rate than a marketing research case in one study (Greer & Lohtia). In the two studies that reported results before and after followups, there were no differential followup effects.

**Individual Sponsors**

In three out of four studies students designated as the survey sponsor received higher response rates than professors (see Table 8). The exception, Wilde, Tonigan & Gordon (1988), the professor sponsor produced a higher response rate than the president of the graduate student association as well as a graduate student without such prestige. The Master's degree student in Nitecki's (1978) survey of librarians was perceived as the lowest in prestige of the three sponsors but received the highest response. Conversely, Labrecque (1978) found a higher response when the marina owner was perceived as the sponsor rather than the service manager. There is not enough evidence on which to base conclusions regarding the ethnicity, race, and gender of the sponsor, although ethically unidentifiable or neutral names produced higher returns than those which appeared to be Hispanic, Jewish, or African American. Similarly American-Chinese sounding names produced higher returns than foreign-sounding names in a survey of exporters who had American-Chinese sounding names. In Feild's (1975) survey of university faculty members, a higher response was observed when the survey was sent by a male researcher than by a female, and when the cover letter was signed by both a male and a female.

**Personalization**

Personalization defies simple definition and in some studies is vaguely defined. Personalization may include one or any combination of the following: handwritten signature on the cover letter, a salutation that includes the name of the individual, inclusion of inside address on the cover letter,

individually typed (or produced) cover letters rather than mimeographed or otherwise mass duplicated form letters (although it is possible for form letters to have some elements of personalization added after duplication), envelope addressed to the respondent by name, handwritten postscript, handwritten elements rather than typed, typed addresses on envelopes rather than the use of mailing labels. Elements of personalization are frequently presented as a set of conditions rather than a single one.

There appears to be a benefit to personalization, however there are few concrete answers. For example, the effects of whether the envelope address is handwritten or typed, whether it is typed or labels are used are evidently influenced by other factors. Anderson & Berdie (1975) found varying results with four populations regarding the value of hand addressing envelopes (see Table 9). Cookingham (1985), in two surveys of the same population at different times, obtained different results when comparing typed addresses versus labels. Hand signing cover letters improved response rates for Horowitz & Sedlacek (1974) and Kawash & Aleamoni (1971) but decreased them for Green and Stager (1986). Personally typed cover letters produced higher response rates than mimeographed cover letters for four out of five groups reported by Simon (1967), with the difference in response rates between the typed and mimeographed cover letters ranging from - 7.5% to + 15%. A complex Followup Reversal Effect was found (Roberts, McCrory & Forthofer, 1978), in this case going from + 1.4% advantage for personalizing after one mailing to a - 0.9% deficit after one followup, then back up to + 2.4% after the second followup.

Andreason (1970) compared three versions of varying personalization and obtained the highest response for the least personalized approach, contrary to Carpenter's (1974) findings after three followups. Dillman and Frey (1974) and Worthen and Valcarce (1985) examined the issue of consistency of personalization across mailings, with four mailings in the former study, two in the latter. Both studies found the highest response rate for personalizing all mailings. Dillman and Frey received a higher response from not personalizing any of the mailings than by using a highly personalized mailing on the fourth mailing rather than maintaining the previous level of personalization. Worthen and Valcarce, who reported on only two mailings, also found that not personalizing either mailing produced a higher return than personalizing one mailing but not the other.

Appeals

Appeals have been found to have both negative and positive impact on response rates when compared to control groups whose correspondence did not contain the appeal (see Table 10). It may be necessary to further examine the circumstances surrounding the survey when deciding whether it is advisable to use an appeal. Other factors might include the following: the population, survey topic, length of the questionnaire, advance contact, followup(s), etc. The negative impact of including an appeal diminished with each followup in a survey of dentists (Roberts et al., 1978) but still had not sufficiently recovered to match the response rate of the group not receiving the appeal even after two followups. If an appeal is deemed to be advantageous in a particular survey, it is still somewhat problematic selecting

the most effective one. While egoistic, social utility, and help the sponsor appeals have probably been studied most widely, their relative effectiveness has not been firmly established.

**Postage - Outgoing**

Postage is another variable that has been the subject of considerable research. There is much less replication of specific procedures, however, than was true for incentives. Postage is classified and grouped as outgoing, outgoing on followup mailings, and return postage. Special mailing (Federal Express, special delivery, certified mail, air mail) on initial outgoing mailings consistently produced noticeably higher response rates than first class, regular or franked mail (see Table 11). Comparison of first class with other classes of mail has provided inconsistent results with regard to which produces a higher response, but response rates have not generally varied substantially (4% or less). Two of three studies comparing commemorative stamps with metered mail found higher response rates when outgoing mail was metered rather than contained a stamp.

Using special postage (special delivery or certified mail) for followup mailings has invariably produced higher returns than regular mail (see Table 12). The difference in response rates between special postage and regular mail varies widely, however.

**Return Postage**

In all but two of 15 studies, stamped return envelopes produced clearly higher response rates than business reply envelopes (see Table 13). There was a Followup Reversal Effected noted in the Elkind, Tryon & deVito (1986) study. What was a 3.2% difference in response rate favoring stamped envelopes after the initial mailing was reversed to a 0.4% deficit after a followup mailing. Corcoran (1985) who also reported response rates before and after a followup, found a Differential Followup Effect, with the 11.3% advantage of using stamped envelopes decreased to a 4% advantage after the followup.

When compared with commemorative stamps on return envelopes, regular stamps were more effective in three studies, less effective in two. Stamps produced higher response rates than mailing permits in two studies, but not in the third one examining this issue.

**Deadline**

Stating a deadline for return of questionnaires sometimes results in higher returns than not indicating a deadline, but other studies show lower returns (see Table 14). Increasing the time allowed for return of questionnaires from five to seven days and from seven to nine days increased response rates for Nevin and Ford (1976). In examining returns for a specific time period, three studies found return rates from 42.1% to 43.3% when a five day deadline was used. For a one week deadline, response rates of 28.8%, 32.6%, and 48.5% were observed, with even more variation in effect when compared with the no-deadline control groups (+ 4.7%, - 50.8%, and - 1.3% respectively).

## Questionnaire Variables

### Colored Paper

Using colored paper for questionnaires was more effective than white paper in five studies, less effective in two (see Table 14). Different colors produced different amounts of impact on response rate when compared to white paper in the various studies, but the effects within each study were consistent. In the three studies that used more than one color of paper (Glisan & Grimm, 1982; Greer & Lohtia, 1994; Pressley & Tullar, 1977), each color of paper produced a similar effect, either increasing or decreasing response rate.

### Anonymity

Including an identification number has more often than not resulted in lower response rates. Four studies obtained higher response rates with either an identification number or name and address on the questionnaire, while in six studies lower response rates were produced, and there was no difference between coded and uncoded questionnaires in one study (see Table 15). Mason, Dressel and Bain (1961) found virtually no difference when name and address were added to forms that already contained identification numbers. Asking individuals to provide identifying information has also brought mixed results, higher response rates in two groups, lower in the other two.

Providing a statement regarding anonymity yielded higher response rates for Futrell and Hise (1982) and Tyagi (1989). Giving respondents the option of removing the coded information, however, lowered response rates in both studies in which it was used (Erdos & Regier, 1977; Shale, 1987). Explaining the purpose of the identification number had a similar effect for Erdos and Regier (1977), but not for Childers and Skinner (1985).

### Questionnaire Length

Length is defined by number of pages and the number of items. If two versions of an instrument were developed of different numbers of pages but the same items, the difference is classified as a format difference, rather than length (although the respondent may perceive the instrument to be longer).

Of the 15 studies in which instruments of varying lengths were used, the shorter/shortest questionnaire had the best response rate in eight studies, the longer questionnaire in four studies, and the mid-length questionnaire in one study (see Table 16). The followup effects can be seen in two studies. In Brown (1965), a followup and reminder nullified the advantage of using a shorter instrument, and in the Jacobs (1986) study the initial advantage of the longer questionnaire was reversed by the use of a reminder. It is somewhat difficult to rank order the five instrument versions of the Dillman, Sinclair and Clark (1993) study by length. It appears that the card stock version is the shortest one, but it was second to the micro version in response rate.

### Questionnaire Format/Layout

Studies in this group varied the construction and appearance of the questionnaire without changing the number of items. Because of the many variations that exist, it was difficult to attempt to

find generalizations. Frequently more than one variable was incorporated into the format. For example, Ford (1968) used different size paper, different reproduction methods, and stapled versus folded/folder-type construction (see Table 17).

Three of the studies (Boser, 199b; Champion & Sear, 1969; Jacobs, 1986) were subject to the Differential Followup Effect. Almost all of the other studies in this group reported response rates at only a single point in time, making it impossible to tell whether there might have been any differences that were negated or reversed by the use of followups.

Booklet construction has been compared to stapled single pages, but results are mixed. In studies comparing questionnaires having smaller dimensions (height and width) with larger ones, the findings have been about evenly divided. Two studies experimented with spreading the same number of items over a larger number of pages. Both Wilde, Tonigan and Gordon (1988) and Champion and Sear (1969) received the highest response rate for the long version. However, on a followup of 300 nonrespondents, Champion and Sear found the mid-length questionnaire received the highest return. Childers and Ferrell (1979) found that using 8 1/2 x 11 inch paper produced 10% higher return rate than 8 1/2 by 14 inch paper.

Some studies dealing with individual variables have not been replicated within the parameters used to select studies for this paper. Hesseldenz and Smith (1977) found little difference between offset printed and computer prepared questionnaires when both were personalized. Horowitz and Sedlacek (1974) found typed questionnaires had the highest response rate, followed by photocopied questionnaires and mimeographed ones. Jacobs (1986) found using optical scan sheets for respondents to mark their responses produced a slightly lower response rate to the initial mailing, but this was reversed after a reminder was sent.

**Variables That Have Not Been the Subject of Extensive Investigation.**

**Mailing Procedures**

Three studies have found that mail sent to work addresses produced higher response rates (from 0.7% to 10% increases) than mail sent to home addresses (see Table 18). A message on the outside of the envelope regarding money increased returns, but labeling the outgoing envelope as "personal" or directing the return envelope to "Attention: *signer of the letter*" had the opposite effect. Using a university envelope produced a higher response to the initial mailing than one with the return address rubber stamped on it, but this was reversed after a followup (Elkind et al., 1986).

Commitment cards can be included with an advance mailing or when the questionnaire is sent. Duhan and Wilson (1990) obtained a higher response rate from marketing executives when cards were sent with prenotification, but Childers and Skinner (1985) obtained their highest return rate from the group not sent commitment cards. Postcards that had a place for respondents to indicate they did not intend to participate and state the reason produced higher returns than those that only indicated the

questionnaire had been returned in a survey of church members (Senf, 1987). Hinrichs (1975) found a Differential Followup Effect when commitment cards were used in a survey of administrators.

**Cover Letter Variables**

Hawkins (1979) found that including full disclosure of the participant's right to refuse to participate in the survey lowered the response rate by almost 5% (see Table 19). Rucker, Hughes, Thompson, Harrison, and Vanderlip (1984) found that including an individual's photo on the cover letter could help or hinder returns, and that followup did influence results. Wagner & O'Toole (1985) obtained better results using a traditional approach when surveying college department heads.

Short time cues do not necessarily produce higher response rates than longer ones or no time cues. Stating that an incentive obligates the respondent to participate was found more effective than calling it a token of appreciation in two studies, but including a simple message of appreciation resulted in lower returns in another study (Robin & Walters, 1976). Nonrespondents were more likely to return questionnaires when told they would be interviewed during a two week period than on a specified date, however not including a statement regarding the proposed interview produced a return rate similar to that obtained when the two week period was mentioned (Dommeyer, 1987).

**Questionnaire**

Asking race information makes little difference in response rate (Sheth, LeClaire & Wachspress, 1980) (see Table 20). The size of the income categories ($5,000 or $10,000) and the option to check two adjacent categories rather than only one had little or no effect on response rates (Swan & Epley, 1981). Omission of a classification question improved response rate by 25% for Watson (1965), but inclusion of other types of items had little effect.

Either researchers are not always able to accurately determine which questions will be perceived as easy by respondents, or placement of easy questions first on the questionnaire is not necessarily related to response rate. Three studies compared question order but failed to yield consistent results in direction or extent.

Researchers must also be careful in selection of a drawing if they put one on the questionnaire cover. Frey (1991) and Pressley and Tullar (1977) found less than one percent difference when a drawing was added, while Longworth (1953) found an adverse effect (- 7%) when a drawing of a family quarrel was used on the questionnaire cover.

**Study Context**

Some interesting and fairly unique variables have been investigated from time to time. While the researcher is not usually free to choose the population, it may be helpful to know that middle class individuals may respond at higher rates than lower class (Gelb, 1975), and that residents of large cities at higher rates than those in small towns (Rudd & Maxwell, 1980) (see Table 21). Rudd and Maxwell also found slight differences in response to surveys on four different topics in 1980, with respondents from the general public showing higher interest in current issues and health care than quality of life and taxes.

Current situations would certainly be expected to have some impact on the amount of interest people have in particular topics.

It is sometimes difficult for researchers to predict the relevance a topic has for potential respondents. As expected, bowlers were much more likely to return questionnaires related to bowlers and bowling facilities than about restaurants (Martin, 1994). Webb (1989), however, found little difference in response to a survey about agriculture from two groups of students, one of whom had no apparent interest in agriculture. Woodward and McKelvie (1985) found the questionnaire they had determined to be of low interest to their population returned at a higher rate than one thought to be of high interest.

## Discussion

There are some variables that have produced consistent results, some that have produced mixed results, and some that have not been extensively studied. For the variables in the second group, consideration of other characteristics of the survey may provide some helpful keys in determining the situations in which they are effective. Individuals may find a challenge in replicating some of the studies in the third group to further establish (or dispute) their findings.

Incentives enhance response rates, but the type and amount (if monetary) are not determined. Enclosed incentives are preferable to those that are only promised or offered. Advance and followup contacts also increase response rates, with telephone advance contacts being more effective than those by mail. Increasing the number of incentives and/or contacts has an incremental effect on response rates. University and familiar sponsors tend to produce higher response rates than marketing research firms and surveys that identify no sponsoring organization. Use of special mail for outgoing mailings, as well as the use of stamped envelopes rather than business reply envelopes for return mail , generally bring higher response rates.

The effects of personalization and questionnaire format appear to be too complex to simply state that they do or do not affect response rates, however consistency in either personalizing or not personalizing may be more productive than mixing the two. Mixed results have been found for the following: utilization of appeals, stating a deadline, colored questionnaire paper, inclusion of identifying information, questionnaire length, and questionnaire format/construction. The most conducive characteristics for the individual signing the cover letter have not been thoroughly established. In addition, there are several other variables that have little research to support them.

This descriptive type of review allows the reader greater insight into the true status of the research. Rather than collapsing the findings of a number of studies into an overall effect of a certain amount, it is possible to note the variation in response rates and when negative as well as positive impact has been found for a variable. The general level of response rate is also presented. A gain of 10% in response rate could potentially have more impact if the control group achieved a response rate of 35%

than if it were 75%. Real differences in response rates are presented rather than levels of statistical significance.

Many of the studies included in this review are inadequately reported. At least one set of previous researchers doing a quantitative review of mail survey methods contacted authors to obtain missing information (Bruvold & Comer, 1988). Conant, Smart and Walker (1990) have developed a checklist of information they thought should be included in all articles that were published reporting mail surveys, but many studies were published prior to their checklist, and journals have not, to the knowledge of this researcher, done anything toward standardizing the information on mail surveys that is included in studies that are published. Information about the presence or absence of one or more variables is simply not mentioned in the article. Review articles also need more thorough reporting so the reader can identify the variables that are studied and understand how the author selected the studies that became part of the review. Telling what computer databases were searched is inadequate without specifying the search terms that were used.

This study is but a beginning. We still have much to learn. This review does not really address situations in which multiple variables are manipulated, and this is an area for further study. Yammarino, Skinner and Childers (1991) found some survey variables differentially affected by two moderators: type of sample and year of publication or when the study was conducted. Jobber (1986) has also noted that survey methods that are successful with nonindustrial populations cannot be assumed to produce comparable results with nonindustrial populations. Modern technology has facilitated personalization and enables researchers to produce professional looking questionnaires that were previously available only through professional printing processes. Much of the research in survey methods has been carried out by market researchers and public opinion pollsters. Perhaps as a result, a considerable number of the studies are directed toward the general public, rather than a more homogeneous target population.

This review focused on response rates and the variables that might aid in attaining high response rates. Another important aspect to be examined is whether those responding to a condition differ in their responses from those in a comparison or control group. For example, do the individuals who respond when an incentive is included differ from those who respond when there is no incentive? Some research has been done in this area but it is not extensive. Another issue yet to be resolved is the level of response necessary to secure adequate representation: at what point is the number of respondents sufficient so the results are similar to what would have been obtained if more (or all) individuals had responded? It is to be hoped that this review will provide some information and encouragement to those who wish to pursue research in survey methods.

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## Table 1
## Monetary Incentives

| Study | Population | N | En/Cn | Reponse Rate | Difference (E - C) | Incentive |
|---|---|---|---|---|---|---|
| a. Enclosed Incentives | | | | | | |
| Armstrong & Yokum, 1994 | forecast professionals | 347 | 137/210 | 59.1% | + 12.9% | $1 |
| Biner & Barton, 1990 | general public | 200 | | 69.1% | | $1.00 |
| | | | | 48.9% | | .25 |
| Chawla, Balakrishnan, & Smith, 1992 | medical equipment dealers | 600 | | 39.2% | + 29.8% | $1 |
| Dommeyer, 1987 | general public (nonrespondents) | 1,056 | | 24% | + 5% | .25 |
| Erdos & Regier, 1977 | Wall Street Journal subscribers | 1,200 | | 71.7% | + 23.9% | $1 |
| Erdos & Regier, 1977 | Wall Street Journal subscribers | 800 | 400 | 43.3% | | .25 in first mail |
| | | | 400 | 57.0% | | $1 in first mail |
| after followup | | | | 58.0% | | .25 in first mail |
| | | | | 66.8% | | $1 in first mail |
| Friedman & SanAugustine, 1979 | general public | 600 | | 37.7% | + 15.7% | .25 |
| Gillpatrick,Harmon, & Tseng, 1994 | engineers/managers | 619 | 406/213 | 43.8% | + 24.6% | $1 |
| Hopkins, Hopkins, & Schon, 1988 | librarians | | | 80% | + 21% | $1 |
| after 1 followup | | | | 86% | + 12% | $1 (on first mailing only) |
| James & Bolstein, 1990 | cable subscribers | 850 | | 62.7% | + 8.5% | .25 |
| | | | | 63.1% | + 8.9% | .50 |
| | | | | 72.8% | + 18.6% | $1 |
| | | | | 77.6% | + 23.4% | $2 |
| after 1 followup | | | | 74.6% | + 2.6% | .25 |
| | | | | 78.0% | + 6% | .50 |
| | | | | 88.2% | + 16.2% | $1 |
| | | | | 88.2% | + 16.2% | $2 |
| after 2 followups | | | | 82.8% | - 0.5% | .25 |
| | | | | 82.7% | - 0.6% | .50 |
| | | | | 91.7% | + 8.4% | $1 |
| | | | | 94.7% | + 11.4% | $2 |
| after 3 followups | | | | 86.4% | - 1.7% | .25 |
| | | | | 86.5% | - 1.6% | .50 |
| | | | | 92.9% | + 4.8% | $1 |
| | | | | 95.9% | + 7.8% | $2 |
| Kephart & Bressler, 1958 | nurses | | 100/100 | 55% | + 3% | .01 |
| | | | 100/100 | 54% | + 2% | .05 |
| | | | 100/100 | 57% | + 5% | .10 |
| | | | 100/100 | 70% | + 18% | .25 |
| Kimball, 1961 | electronics manufacturers | 3000 | 1,000,/1,000 | 41.4% | + 11% | .10 |
| London & Dommeyer, 1990 | design engineers | 1000 | | 24.1% | +19.2% | $1 |
| Newman, 1962 | magazine subscribers | 375 | 75/75 | 46.7% | + 17.4% | .25 |
| | (2 page questionnaiare) | | 75/75 | 53.3% | + 24.0% | $1 |
| | (4 page questionnaire) | 375 | 75/75 | 37.3% | | .25 |
| | | | 75/75 | 61.3% | | $1 |
| Mizes, Fleece, & Roos, 1984 | allergy specialists | 200 | | 73.7% | + 21.1% | $1 check, answer postcard |
| | | | | 73.7% | + 21.1% | $5 check, answer postcard |
| | | | | 52.6% | nd | $1 answer/check |
| | | | | 71.8% | + 19.2% | $5 answer/check |
| Pressley & Tuller, 1977 (with 1 followup) | marketing research drectors | 280 | | 44.5% | + 11.2% | .10 |
| Robin & Walters, 1976 | general public | 1,522 | | 40.5% | + 21% | .10 |
| Shuttleworth, 1931 | general public | 997 | 608/376 | 51.6% | + 32.5% | .25 enclosed |

Table 1. Incentives (continued)

| Study | Population | N | En/Cn | Reponse Rate | Difference | Condition |
|---|---|---|---|---|---|---|
| Taylor & Anderson, 1989 | loan officers | 60 | | 73.5% | + 10.0% | $1 |
| Tedin & Hofstetter, 1982 | general public | | 330/1,012 | 29% | + 15% | .25 |
| after 1 followup | | | | 41% | + 10% | |
| Welch & Massey, 1987 | former bank customers | 900 | | 64.4% | + 23.6% | $1 |
| | customers | | | 49.6% | + 8.8% | $1 check w/questionnaire on back |
| Wiseman, 1973 | general public | 464 | | 47.0% | + 8.2% | .10 |
| Zusman & Duby, 1987 | college dropouts | 371 | 200/171 | 54.2% | +32.5% | $1 |
| after 1 followup | | | | 63.5% | +18.9% | $1 |
| b. Promised or Offered Incentives | | | | | | |
| Balakrishnan, Chawla, Smith, & Michalski, 1992 | oil product customers | 6,384 | | 14.9% | + 8.7% | drawings $300 - $1000 |
| Balakrishnan et al, 1992 | general public | 6,384 | | 9.8% | + 4.6% | prize drawing |
| Faria & Dickinson, 1992 | manufacturing customers | 150 | | 34.4% | + 6.2% | promised $2.50 to unspecified charity |
| | | | | 39.2% | + 11.0% | promised $2.50 to 1 of 3 charities |
| Gitelson, Kerstetter, &. Guadagnolo, 1993 (with followup) | road race participants | 1,200 | | 67.3% | + 9.3% | raffle |
| Lam, Malaney, & Oteri, 1990 | university students | 3300 | | 51.3% | + 3.9% | raffle |
| London & Dommeyer, 1990 | design engineers | 1500 | | 6.0% | + 3.8% | sweepstakes |
| | | | | 5.1% | + 2.9% | sweepstakes & gift (unspecified) to all respondents |
| Robertson & Bellenger, 1978 | phone customers | 450 | | 26.0% | + 2.7% | $1 promised to respondent |
| | | | | 41.3% | + 18.0% | $1 promised to charity |
| Schewe & Cournoyer, 1976 | tourists | 900 | | 25.0% | - 3.0% | $1.00 promised |
| | | | | 41.0% | + 13.0% | $2.00 promised |
| | | | | 40.5% | + 12.5% | $3.00 promised |
| | | | | 44.0% | + 16.0% | $5.00 promised |
| Spry, Hovell, Sallis, Hofstetter, Elder, & Molgaard, 1989 | general public | 600 | | 27.3% | + 4.6% | lottery |
| after 1 followup | | | | 32.7% | + 0.3% | lottery |
| Spry et al., 1989 (with 1 followup) | general public | 309 | | 29.1% | + 8.2% | lottery |
| c. Comparison of Enclosed and Promised Incentives | | | | | | |
| Berry & Kanouse, 1985 (with 3 followups) | doctors | | 1011/1017 | 78% | | $20 enclosed |
| | | | | 66% | | $20 promised |
| Gelb, 1975 | general public - middle class | 400 | | 54% | | .50 enclosed |
| | | | | 45% | | .50 promised |
| | general public - lower class | | | 15% | | .50 enclosed |
| | | | | 25% | | .50 promised |
| | | | | 34.5% | | enclosed (combined groups) |
| | | | | 35.0% | | promised (combined groups) |
| Hancock, 1940 | general public | 6,197 | | 47.2% | + 37.6% | .25 enclosed |
| | | | | 17.6% | + 8% | .25 promised |
| Shank, Darr, & Werner, 1990 | wholesalers | 1428 | | 5.7% | + 3.7% | 50 cents enclosed |
| | | | | 2.6% | + 0.6% | 50 cents promised |
| | | | | 6.8% | + 4.8% | $1 enclosed |
| | | | | 1.0% | - 1.0% | $1 promised |
| | | | | 5.0% | + 3.0% | golf kit enclosed |
| | | | | 4.5% | + 2.5% | golf kit promised |
| Spry et al., 1989 | general public | | 88/3,114 | 12.5% | + 2.1% | enclosed $1 |
| | | | 90/3,114 | 13.3% | + 2.9% | promised $1 |
| | | | 96/3,114 | 21.9% | + 11.5% | promised $5 |
| Wotruba, 1966 | gen public | 150 | | 40% | | .25 enclosed |
| | | | | 20% | | .50 promised |

## Table 2

### Non-Monetary Incentives

| Study | Population | N | En/Cn | Reponse Rate | Difference | Condition |
|---|---|---|---|---|---|---|
| Brennan, 1958 | general public | 456 | 235/221 | 29% | + 7% | 50 trading stamps enclosed |
| Dommeyer, 1985 | business students | 420 | | 43% | + 1% | offered summary of results |
| Dommeyer, 1989 | computer owners, mfrs, retailers | 900 | | 23%<br>16% | - 1%<br>- 8% | offered summary<br>offered summary in Lift Letter |
| Ferriss, 1951 | sociology instructors | | 141/89 | 62.4% | + 36.6% | stamped return envelope included |
| Furst & Blitchington, 1979 | school principals | 200 | | 68% | + 5% | descriptive letter describing the research study included along with cover letter |
| Hawes, Crittenden, & Crittenden, , 1987 | supermarket executives | 472 | | 39.2% | + 4.8% | summary |
| Houston & Jefferson, 1975 | new car buyers | 400 | | 51.0% | + 18.5% | ball point pen |
| Kerin & Harvey, 1976 | Fortune 500 firms | 440 | | 34.1% | - 3.2% | stamp on reply envelope |
| Longworth, 1953 | general public | 100 | | 19% | + 5% | newspaper article describing the research |
| May, 1960 | engineers | 657 | | 35%<br>20%<br>12% | + 22%<br>+ 7%<br>- 1% | ball point pen enclosed<br>golf ball offered<br>summary offered |
| Miller, 1994 (with 2 followups) | professors | 1,000 | | 63.5% | + 8.8% | one cup coffee bag |
| Nitecki, 1978 | librarians | 738 | | 74.8% | + 2.7% | bookmark |
| Powers & Alderman, 1982 | high school juniors | 2,012 | | 50.1% | + 4.6% | summary |
| Tyagi, 1989 | insurance salesmen | 600 | | 68.3% | - 1.4% | summary |
| Whitmore, 1976 (with 1 followup) | new car owners | 1000 | | 57.4% | + 5.2% | key ring |
| Wilde, Tonigan, & Gordon, 1988 | postsecondary instructors, national lab employees | 426 | 71/71 | 42.3% | +9.9% | self addressed stamped envelope |
| Wiseman, 1973 | general public | 464 | | 40.0% | - 5.7% | summary |

Note. Lift letter (Dommeyer,1989): in addition to cover letter; on outer side, handwritten message *"Read this only if you're not responding!"* Offer of summary was included in lift rather than cover letter.

## Table 3

## Comparisons of Mixed Types of Incentives and Incentives on Various Mailings

| Study | Population | N | En/Cn | Reponse Rate | Difference | Condition |
|---|---|---|---|---|---|---|
| a. Incentive on First Mailing | | | | | | |
| Denton & Tsai., 1991 (with 1 followup) | alumni | 297 | 32/136 | 31.3% | - 12.1% | .25 |
| | | | 85/136 | 58.8% | + 15.4% | had received newsletter |
| Denton et al., 1991 (with 1 followup) | alumni | 100 | | 81% | + 21% | .25 |
| | | | | 74% | + 14% | .50 |
| | | | | 78% | + 18% | $1 |
| | | | | 68% | + 8% | raffle for journal |
| Dommeyer, 1988 | general public | 600 | | 50% | + 13% | .25 coin |
| | | | | 37% | nd | .25 appreciation? |
| | | | | 38% | + 1% | .25 money order |
| | | | | 30% | - 7% | drawing for $25 |
| | | | | 33% | - 4% | $25 divided among early returnees |
| Finlay & Thisthlewaite, 1992 | general public | 1,206 | | 65.5% | + 28.4% | $1 |
| | | | | 30.6% | - 6.5% | promised donation to charity |
| Glisan & Grimm, 1982 | farmers | 1,512 | | 24.2% | + 9.7% | .25 |
| | | | | 19.4% | + 4.9% | summary |
| Hansen, 1980 | industrial safety engineers | 2,425 | | 38.0% | + 23.9% | .25 |
| | | | | 22.0% | + 7.9% | pen of comparable value |
| Hubbard & Little, 1988a | bank customers | 3,150 | | 40.4% | + 13.5% | .25 |
| | | | | 56.4% | + 29.5% | $1 |
| | | | | 29.6% | + 2.7% | chance to win $50 |
| | | | | 28.2% | + 1.3% | chance to win $100 |
| | | | | 28.7% | + 1.8% | chance to win $150 |
| | | | | 37.8% | + 10.9% | chance to win $200 |
| Hubbard & Little, 1988b | general public | 2,000 | | 56.8% | + 16.3% | .25 |
| | | | | 68.0% | + 27.5% | $1 |
| | | | | 33.5% | - 7.0% | promised $1 to charity |
| | | | | 51.8% | + 11.3% | chance to win $200 |
| James & Bolstein, 1992 | subcontractors | 1200 | | 40.7% | + 20.0% | $1 |
| | | | | 48.7% | + 28.0% | $5 cash |
| | | | | 52.0% | + 31.3% | $5 check |
| | | | | 44.0% | + 23.3% | $10 check |
| | | | | 54.0% | + 33.3% | $20 check |
| | | | | 54.0% | + 33.3% | $40 check |
| | | | | 23.3% | + 2.6% | promise of $50 |
| after 1 followup | | | | 52.0% | + 15.3% | $1 |
| | | | | 60.7% | + 24.0% | $5 cash |
| | | | | 62.7% | + 26.0% | $5 check |
| | | | | 56.7% | + 20.0% | $10 check |
| | | | | 70.7% | + 34.0% | $20 check |
| | | | | 63.3% | + 26.6% | $40 check |
| | | | | 43.3% | + 6.6% | promise of $50 |
| after 2 followups | | | | 61.3% | + 14.6% | $1 |
| | | | | 66.7% | + 20.0% | $5 cash |
| | | | | 66.7% | + 20.0% | $5 check |
| | | | | 62.0% | + 15.3% | $10 check |
| | | | | 75.3% | + 28.6% | $20 check |
| | | | | 66.0% | + 19.3% | $40 check |
| | | | | 53.3% | + 5.6% | promise of $50 |
| after 3 followups | | | | 64.0% | + 12.0% | $1 |
| | | | | 71.3% | + 19.3% | $5 cash |
| | | | | 67.3% | + 15.3% | $5 check |
| | | | | 66.7% | + 14.7% | $10 check |
| | | | | 79.3% | + 27.3% | $20 check |
| | | | | 69.3% | + 17.3% | $40 check |
| | | | | 56.7% | + 4.7% | promise of $50 |
| Little & Englebrecht , 1990 | magazine rrespondents | 1000 | | 27.3% | + 3.3% | pan scraper |
| | | | | 37.3% | + 13.3% | .25 |
| Lorenzi, Friedmann, & Paolillo, 1988 | businessmen, legislators | 400 | | 65% | + 29% | $1 |
| | | | | 33% | - 3% | promised $2 |
| | | | | 41% | + 5% | $100 lottery |

Table 3. Comparisons of Mixed Types of Incentives and Incentives on Various Mailings (Continued)

| Study | Population | N | En/Cn | Reponse Rate | Difference | Condition |
|---|---|---|---|---|---|---|
| McDaniel & Jackson, 1984 | farmers & ranchers | 3001 | 750/1501 | 37.2% | + 13.7% | .25 |
| | | | 750/1501 | 25.8% | + 2.3% | chance at $100 |
| Shank, Darr, & Werner, 1990 | food service distributors | 4610 | | 11.6% | + 6.6% | .50 enclosed |
| | | | | 5.7% | + 0.7% | summary |
| | | | | 11.0% | + 6.0% | mini calculator |
| | | | | 6.1% | + 1.1% | drawing for tv |
| Watson, 1965 | Bus Week subscribers | 10,500 | 500/1,000 | 40% | + 10% | .10 |
| | | | 500/1,000 | 48% | + 18% | .25 |
| | | | 500/1,000 | 41% | + 11% | packet of stamps |
| Wilde et al., 1988 | instructors + national lab | 426 | 71/71 | 52.1% | + 19.7% | .50 |
| | | | 71/71 | 31.0% | - 1.4% | drawing for $50 |
| b. Incentives on Subsequent Mailings | | | | | | |
| Erdos & Regier, 1977 | Wall Street Journal subscribers | | 600/600 | 71.7% | + 23.9% | $1 in first mailing |
| after followup | | | 400/400 | 79.5% | + 13.2% | $1 in second mailing |
| | | | 200 | 82.5% | | $1 in first and second mailings |
| | | | 200 | 73.5% | | $1 in first mailing only |
| | | | 200 | 76.5% | | $1 in second mailing only |
| | | | 200 | 59.0% | | no incentive |
| Furse, Stewart & Rados, 1981 | phone customers | | 295/294 | 36% | + 15% | .50 |
| | | NR | 114 | 43% | | sent .50 on followup |
| | | | 93 | 25% | | sent incentive only on first |
| | | | 88 | 25% | | sent incentive on both 1st & second |
| | | | 116 | 22% | | no incentive either mailing |
| | | | 81 | 31% | | preliminary phone, no incentives |
| | | | 84 | 38% | | preliminary phone, incentive second |
| Huck & Gleason, 1974 | university students | 200 | 50/150 | 78% | + 28% | .25 |
| after 1 followup | | | 50/100 | 92% | + 27% | those who received first incentive |
| | | | 50/100 | 85% | + 20% | .25 on first followup |
| after second followup | | | 50/50 | 94% | + 23% | .25 on first mailing |
| | | | 50/50 | 92% | + 21% | .25 on first followup |
| | | | 50/50 | 78% | + 7% | .25 on second followup |
| Tedin & Hofstetter (1982) | general public | | | 29% | + 15% | $25 incentive on first mail |
| after 1 followup | | | | 41% | | incentive on first mailing |
| | | | | 35% | | incentive on second mailing |
| c. Incentives after initial refusal to participate | | | | | | |
| Snyder & Lapovsky, 1984 | general public (had refused to participate when called initially) | | 1632* | 25.1%** | | agreed to participate when called second time (control, no incentive) |
| | | | 1526* | 29.5%** | + 4.4% | sent letter prior to second call |
| | | | 1536* | 43.4%** | + 18.3% | sent letter with $1 prior to second call |
| | | | 832* | 36.7%** | + 11.6% | sent letter plus silver colored pen with company logo |
| | | | 668* | 35.0%** | + 9.9% | sent letter plus keychain pen with log |
| | | | | 45.4%*** | | control (no incentive) |
| | | | | 43.2%*** | - 2.2% | letter only |
| | | | | 50.0%*** | + 4.6% | letter plus $1 |
| | | | | 46.6%*** | + 1.2% | letter plus pen |
| | | | | 49.0%*** | + 3.6% | letter plus keychain pen |

* Individuals who had refused to participate when called the first time.
** Percentage agreeing to participate after receiving second phone call (preceded by incentive(s) as indicated)
*** Return rate of those who agreed to participate on second phone call

## Table 4

### Multiple Incentives

| Study | Population | N | En/Cn | Reponse Rate | Difference | Condition |
|---|---|---|---|---|---|---|
| Cook, Schoeps & Kim, 1985 | drug prog admin. | 250 | | 22% | | feeedback, promised $100 if they participated in later survey |
| | | | | 27% | | feedback only |
| Furse & Stewart, 1992 | product owners | 600 | | 68% | + 14% | .50 |
| | | | | 76% | + 22% | $1 |
| | | | | 56% | + 2% | promised $1 to charity |
| | | | | 71% | + 17% | .50 + promised $1 to charity |
| | | | | 78% | + 24% | $1 + promised $1 to charity |
| Pucel, Nelson & Wheeler, 1971 | vocational school alumni | 1,100 | | 54.7% | + 11.8% | pencil |
| | | | | 49.5% | + 6.6% | one cup coffee packet |
| | | | | 51.5% | + 8.6% | advance letter |
| | | | | 52.6% | + 9.7% | pencil + colored questionnaire |
| | | | | 57.7% | + 14.8% | pencil + advance letter |
| | | | | 62.5% | + 19.6% | pencil + color + advance |
| | | | | 55.6% | + 12.7% | coffee + color |
| | | | | 54.1% | + 11.2% | coffee + advance letter |
| | | | | 63.2% | + 20.3% | coffee + color, + advance |
| | | | | 51.4% | + 8.5% | one: pencil, coffee, color, or advance |
| | | | | 55.0% | + 12.1% | two: pencil or coffee + color or advance |
| | | | | 62.8% | + 19.9% | three: pencil or coffee + color + advance |
| Wilde et al., 1988 | instructors + national lab employees | 426 | 71/71 | 63.4% | + 31.0% | self addressed stamped envelope + .50 |
| | | | 71/71 | 54.9% | + 22.5% | self addressed stamped envelope + drawing for $50.00 |
| | | | 71/71 | 52.1% | + 19.7% | .50 |
| | | | 71/71 | 31.0% | - 1.4% | drawing for $50 |
| Wiseman, 1973 | general public | 464 | | 24.0% | | none |
| | | | | 37.8% | | one of four: followup postcard, 10 cents, stamped return envelope, offer of results) |
| | | | | 45.2% | | two of four |
| | | | | 48.5% | | three of four |
| | | | | 48.0% | | all four |

## Table 5
## Effect of Sending Followup(s)

| Study | Population | N | En/Cn | Reponse Rate | Difference | Condition |
|---|---|---|---|---|---|---|
| a. Control Group Studies | | | | | | |
| Boser, 1990b | university alumni | | 182/94 | 40.7% | +5.3% | reminder |
| Cox, Anderson & Fulcher, 1974 | general public | 4,000 | | 18.3% | +1.1% | postcard (after 3 days) |
| Erdos & Regier, 1977 | Wall Street Journal subscribers | 800 | | 67% | +9.2% | postcard (reminder) |
| Etzel & Walker, 1974 | credit card holders | 700 | 193/299 | 59.0% | +20.2% | reminder |
| | | | 193/299 | 52.9% | +14.1% | questionnaire & return envelope |
| Futrell & Lamb, 1981 | farmers & ranchers | 2,002 | | 15.7% | +3.1% | letter reminder |
| | | | | 23.4% | +10.8% | questionnaire |
| | | | | 16.0% | +3.4% | 2 letter followups |
| | | | | 29.7% | +17.1% | 2 followups, both w/questionnaire |
| | | | | 20.3% | +7.7% | 3 letter followups |
| | | | | 34.3% | +21.7% | 3 followups, all with questionnaire |
| Kephart & Bressler, 1958 | nurses | | 100/100 | 68% | +16% | followup |
| Lam, Malaney & Oteri, 1990 | university students (NR) | 2,237 | | 34.0% | +7.7% | phone contact (prior to second followup) |
| Longworth, 1953 | general public | 100 | | 63% | +37% | phone or postcard (1 week) |
| Martin, Duncan & Sawyer, 1984 | university students | 2,000 | | 25.3% | +4% | followup |
| Myers & Haug, 1969 | general public | 700 | | 28.0% | -0.9% | letter |
| Nichols & Meyer, 1966 | college students | 1,600 | | 58.0% | +21.0% | postcard (3 days) |
| after postcard to all and second questionnaire | | | | 88.5% | +4.5% | 3 day postcard group |
| Peterson, 1975 | consumers | 3,840 | | 29.8% | +5.2% | postcard |
| Watson, 1965 | Business Week subscribers | | 500/1000 | 37% | +7% | postcard (to NR) |
| | | | 500/1000 | 46% | +16% | 2 day followup mailing to all |
| Wiseman, 1973 | general public | 464 | | 47% | +8.2% | postcard |
| b. Comparison Group Studies | | | | | | |
| Boser, 1990b | university alumni | | 94 | 45.7% | | postcard reminder |
| | | | 88 | 35.2% | | letter reminder |
| | | | 92 | 44.6% | | reminder mailed after 2 weeks |
| | | | 90 | 36.7% | | reminder mailed after 1 week |
| | | | 47 | 42.3% | | second questionnaire after 3 weeks (no reminder) |
| | | | 47 | 25.5% | | second questionnaire after 4 weeks (no reminder |
| Nevin & Ford, 1976 | university students (NR) | 670 | | 37.7% | | veiled threat (followup message) |
| | | | | 22.5% | | casual followup message |
| Ogborne, Rush, & Fondacarro, 1986 | health,social service professionals (NR) | 78 | | 38% | | mailed second questionnaire |
| | | | | 33% | | phoned, with offer to conduct phone interview |
| Roscoe, Lang & Sheth, 1975 | phone customers (NR) | 2,144 | | 76.4% | | phone call followed by second qre |
| | | | | 69.6% | | postcard followed by second qre e |
| | | | | 65.9% | | letter followed by phone interview |
| | | | | 57.0% | | unannounced phone interview |
| Sletto, 1940 | alumni (NR) | 192 | | 29% | | postcard reminder |
| | | | | 29% | | letter reminder |
| Swan , Epley & Burns, 1980 | real estate brokers (NR) | | 456 | 7.7% | | letter and questionnaire |
| | | | 456 | 7.5% | | letter |

## Table 6
## Advance Contact

| Study | Population | N | En/Cn | Reponse Rate | Difference | Type of Advance Contact |
|---|---|---|---|---|---|---|
| a. Letter | | | | | | |
| Boser, 1990a (with followups) | university alumni | 288 | | 39.9% | + 2.9% | letter |
| Ford, 1967 | general public | 949 | | 39.6% | + 6.7% | letter |
| Ford, 1967 | general public | 1,573 | | 21.0% | + 5.7% | letter |
| Heaton, 1965 | car buyers | 82 | | 51.2% | + 24.4% | letter |
| Myers & Haug, 1969 | general public | 700 | | 37% | + 8.1% | letter |
| Pucel, Nelson & Wheeler, 1971 | vocational tech graduates | | 100/100 | 51.5% | + 8.6% | letter |
| Scott, 1957 (with 1 followup) | females over 60 | 350 | | 78% | + 5% | letter |
| Smith & Hewett, 1972 | general public | 1,655 | | 43.3% | + 10% | letter |
| after 1 followup | | | | 51.1% | + 11.3% | letter |
| Taylor & Anderson, 1989 | loan officers | 60 | | 35.0% | + 1.7% | letter |
| b. Postcard | | | | | | |
| Erdos & Regier, 1977 | Wall Street Journal subscribers | 1,200 | | 62.2% | + 4.9% | postcard |
| after followup | | | | 70.8% | + 4.5% | postcard |
| Murphy, Daley & Dalenberg, 1991 | freight forwarders | 481 | | 16.5% | + 5.8% | postcard |
| after 1 followup | | | | 27.6% | + 8.1% | postcard |
| Sutton & Zeits, 1992 | trade allies | 215 | 123/92 | 67% | + 2% | postcard |
| c. Phone | | | | | | |
| Dillman & Frey, 1974 | general public | 696 | | 66.9% | + 2.4% | phone (foot in the door) |
| Furse et al, 1981 | phone customers | 907 | 214/588 | 22% | + 1% | phone (foot) |
| after followup | | | | 31% | + 9% | phone (foot) |
| Hansen & Robinson, 1980 | general public | 600 | | 51.6% | + 28.4% | phone - probe foot |
| | | | | 37.8% | + 14.6% | phone - simple foot |
| Hornik 1982 | general public | 640 | 135/100 | 68.9% | + 32.9% | ingratiation |
| | | | 135/100 | 60.7% | + 24.7% | polite request |
| | | | 135/100 | 51.1% | + 15.1% | rhetorical question |
| | | | 135/100 | 47.4% | + 11.4% | statement |
| Kamins, 1989 | general public | 505 | | 58.8% | + 27.8% | labelled probe foot |
| | | | | 47.1% | + 16.1% | probe foot |
| | | | | 43.0% | + 12.0% | simple foot |
| | | | | 39.6% | + 8.6% | solicitation group |
| after followup | | | | 71.6% | + 30.6% | labelled probe foot |
| | | | | 60.8% | + 19.2% | probe foot |
| | | | | 52.0% | + 11.0% | simple foot |
| | | | | 48.5% | + 7.5% | solicitation group |
| Waisanen, 1954 | general public | 300 | | 46.3% | + 20.1% | phone |
| d. Nonspecific or Unique Advance Contact | | | | | | |
| Duhan & Wilson, 1990 | marketing executives | 2,000 | | 40.4% | + 19.6% | prenotification |
| Furst & Blitchington, 1979 | principals | 200 | | 77% | + 23% | advance letters also sent to secretaries |
| Gillpatrick et al., 1994 | engineers/managers | 619 | 309/200 | 48.9% | + 32.9% | phone |
| | | | 110/200 | 32.7% | + 16.7% | referred by someone called |
| Kephart & Bressler, 1958 | nurses | 100 | | 53% | + 1% | advance mail |
| Martin et al., 1984 | university students | 2,000 | | 31.3% | + 16% | prenotified (type not known) |

Table 6 Advance Contact (continued)

| Study | Population | N | En/Cn | Reponse Rate | Difference | Type of Advance Contact |
|---|---|---|---|---|---|---|
| Parsons & Medford, 1972 | alumni | 236 | | 76.1% | + 0.6% | advance notice |
| Parsons & Medford, 1972 | religious leaders | 450 | | 54% | - 11% | advance notice |
| | religious leaders | 150 | | 66% | + 6% | advance notice |
| e. Mail -Phone Comparisons | | | | | | |
| Faria, Dickinson, & Filipic, 1990 | home owners | 495 | | 47.9% | + 14.2% | letter |
| | | | | 42.3% | + 8.6% | phone |
| Spry, Hovell, Sallis, Hofstetter, Elder, & Molgaard, 1989 | general public | 600 | | 29.0% | + 8.6% | phone |
| | | | | 24.9% | + 4.5% | postcard |
| after 1 followup | | | | 35.6% | + 7.4% | phone |
| | | | | 33.6% | + 5.4% | postcard |
| Stafford, 1966 | college students | 1,247 | 214/614 | 68.2% | + 47.7% | phone |
| | | | 420/614 | 43.7% | + 22.8% | letter |
| Sutton & Zeits, 1992 | rebate program participants | 186 | 26/25 | 96% | + 4% | phone and postcard |
| | | | 67/25 | 88% | - 4% | postcard |
| | | | 68/25 | 81% | - 9% | phone |
| Sutton & Zeits, 1992 | business customers | 1,063 | 106/249 | 70% | + 12% | phone and postcard |
| | | | 346/249 | 63% | + 5% | phone |
| | | | 362/249 | 59% | + 1% | postcard |
| Walker & Burdick, 1977 | credit card holders | 700 | 200/300 | 54.0% | + 15.2% | letter |
| | | | 200/300 | 51.0% | + 12.2% | postcard |
| Wynn & McDaniel, 1985 | exercise, recreational club members | 569 | 123/324 | 48.8% | + 31.2% | phone permission foot |
| | | | 122/324 | 48.4% | + 30.8% | phone probe foot |
| Kerin, 1974 | general public | 659 | | 47.4% | | phone |
| | | | | 38.1% | | impersonal form letter |
| Kerin, 1983 | credit applicants | | 149 | 51% | | phone |
| | | | 193 | 33% | | letter |
| f. Comparison/Combination with Followup, Number of Contacts | | | | | | |
| Jones & Lang, 1980 | home buyers | 2,926 | | 30.7% | | advance postcard & reminder postcard |
| | | | | 25.3% | | postcard reminder (no advance notice) |
| | | | | 20.4% | | advance postcard |
| Kephart & Bressler, 1958 | nurses | | 100 | 68% | | followup but no advance notice |
| | | | 100 | 67% | | advance notice and followup |
| | | | 100 | 53% | | advance notice |
| | | | 100 | 52% | | neither advance nor followup |
| Futrell & Lamb, 1981 | farmers & ranchers | 2,002 | | 12.0% | | one contact |
| | | | | 19.5% | | two contacts |
| | | | | 22.8% | | three contacts |
| | | | | 27.3% | | four contacts |
| Peterson, Albaum & Kerin, 1989 | general public | 9,623 | | 10.0% | | one contact |
| | | | | 13.6% | | two contacts |
| | | | | 17.6% | | three contacts |
| | | | | 21.6% | | four contacts |
| Smith & Bers, 1987 | alumni | 856 | | 35.5% | | one followup |
| | | | | 51.5% | | two followups |

Note. Definitions/examples:

Foot in the door - Advance contact that includes asking a few simple questions, with the idea that if an individual complies with a simple request, the individual will be more likely to comply with a larger request.

Permission foot - A foot in the door advance contact in which the respondent is asked permission to send him/her the questionnaire

Probe Foot - Advance contact that asks a few simple questions followed by a probe to get respondent to tell why s/he responded as s/he did

Labeled probe foot - A probe foot advance contact in which the respondent is described by the caller as 'helpful' and "cooperative"

## Table 7

## Organizational Sponsors

| Study | Population | N | n | Reponse Rate | Condition |
|---|---|---|---|---|---|
| Albaum, 1987 | credit union members | 600 | | 52%<br>46.8%<br>42.5% | university<br>credit union<br>research firm |
| Armstrong, 1991 | temporary employees | 950 | | 41%<br>40% | company headquarters<br>fictitious consulting firm |
| Chawla, Balakrishnan & Smith, 1992 | medical equipment dealers | 600 | | 19.8%<br>9.4% | university stationery, university sponsor<br>no letterhead, sponsor ID |
| Erdos & Regier, 1977 | Wall Street Journal subscribers | 400 | | 70%<br>51% | Wall Street Journal<br>market research firm |
| after followup | | | | 77.5%<br>61.5% | Wall Street Journal<br>market research firm |
| Faria & Dickinson, 1992 | business customers | 1500 | | 43.5%<br>24.4% | university<br>market research firm |
| Greer & Lohtia, 1994 | sales executives | 800 | | 23.5%<br>18.5%<br>7.0%<br>9.5% | honor society<br>university sponsor<br>market research company<br>no sponsor |
| Hawkins, 1979 (with 1 followup) | general public | 930 | | 45.6%<br>41.5%<br>29.6% | university<br>fictitious research firm<br>actual sponsoring firm for department store |
| Houston & Nevin, 1977 | general public | 2000 | | 42.3%<br>40.4% | university<br>research firm |
| Jones & Lang, 1980 | home buyers | 2926 | | 28.7%<br>22.2% | university sponsor<br>realtors' association |
| Jones & Linda, 1978 (with 1 reminder) | meeting planners | 4212 | | 34.7%<br>29.0%<br>24.7% | university<br>government agency<br>marketing research firm |
| Peterson 1975 | consumers | 3840 | | 33.7%<br>20.7% | university<br>business |
| Rucker, Hughes, Thompson, Harrison, & Vanderlip,1984 | alumni | 384 | | 32.7%<br>27.0% | animal science<br>textiles & clothing dept |
| after 2 followups | | | | 54.7%<br>54.5% | animal science dept<br>textiles & clothing |
| Taylor, 1987 | citrus growers | 3467 | 1,627<br>1,840 | 50.1%<br>33.2% | familiar sponsor (State Agency)<br>unfamiliar |
| after 1 followup | | | | 66.7%<br>47.3% | familiar<br>unfamiliar |
| after 2 followups | | | | 76.3%<br>59.0% | familiar<br>unfamiliar |
| Watson, 1965 | Business Week subscribers | 10,500 | 500<br>1,000 | 32%<br>30% | Business Week letterhead<br>blind letterhead |

## Table 8

### Individual Sponsors

| Study | Population | N | Reponse Rate | Condition |
|---|---|---|---|---|
| Chawla & Nataraajan, 1994 | exporters- contact person had American-Christian sounding name | 800 | 37.5% | graduate student, American-Christian name |
| | | | 35.5% | Small Business Institute director, American-Christian name |
| | | | 31.5% | professor, foreign-sounding name |
| | | | 27.5% | undergraduate, foreign-sounding name |
| Feild, 1975 | university faculty | 306 | 76.5% | male researcher |
| | | | 69.6% | female researcher |
| | | | 64.7% | letters signed by both male & female |
| Friedman & Goldstein, 1975 | travel agents | 1193 | 64% | Hispanic name - Jose Mangual |
| | | | 64% | Jewish name - Hershey Friedman |
| | | | 66% | ethnically unidentifiable - Steven Phillips |
| Friedman & San Augustine, 1979 | general public | 600 | 28.6% | Leroy Jefferson |
| | | | 31.0% | John Richardson |
| Hawes, Crittenden & Crittenden, 1987 | supermarket executives | 472 | 37.9% | Ph.D. candidate |
| | | | 35.5% | university deptartment head |
| Horowitz & Sedlacek, 1974 | professors | 600 | 68.7% | professors |
| | | | 68.7% | graduate students |
| Labrecque, 1978 (with followups + incentive) | marina customers | 200 | 50.5% | owner signed |
| | | | 36.5% | service manager signed |
| Nitecki, 1978 | librarians | 738 | 71.1% | high prestige - American Library Assn. |
| | | | 72.8% | moderate - prof colleague, University Library |
| | | | 76.4% | low - graduate student, MS thesis |
| Rucker et al., 1984 | alumni | 384 | 30.8% | student |
| | | | 29.2% | professor |
| after 2 followups | | | 55% | student |
| | | | 54.2% | professor |
| Vocino, 1977 (with 1 followup) | professional organization members | 1400 | 37.1% | prominent organization member |
| | | | 33.9% | relatively unknown member |
| Wilde, Tonigan & Gordon, 1988 | postsecondary instructors & national lab employees | 426 | 48.3% | professor |
| | | | 45.1% | graduate student association president |
| | | | 43.3% | graduate student |

## Table 9

## Personalization

| Study | Population | N | En/Cn | Reponse Rate | Difference | Condition |
|---|---|---|---|---|---|---|
| a. Personalization on Initial Mailing | | | | | | |
| Anderson & Berdie, 1975 | university administrators | 117 | | 29% | -1 | envelope hand addressed (vs. typed) |
| | university faculty | 200 | | 16% | -7% | envelope hand addressed (vs. typed) |
| | graduate assistants | 1,137 | | 31% | nd | envelope hand addressed (vs. typed) |
| | uudergraduate students | 428 | | 24% | +11% | envelope hand addressed (vs. typed) |
| Andreason, 1970 | lottery winners | 515 | | 37.3% | | A. least personal, mimeo, dear lottery winner |
| | | | | 27.3% | | B. typed, salutation by name |
| | | | | 33.8% | | C. typed, salutation by name, p.s. |
| after followup | | | | 60.5% | | A. least personal |
| | | | | 56.8% | | B. |
| | | | | 57.8% | | C. personalized |
| Blumenfeld, 1973 (with 1 followup) | physical therapists | 132 | | 85% | + 9% | auto-typed, personal, signed (vs. all mimeographed |
| Childers, Pride & Ferrell., 1980 | American Marketing Assn. (academicians) | 700 | | 33% | | handwritten ps |
| | | | | 36% | | typed ps |
| Childers et al.., 1980 | business practitioners | 1,001 | | 34% | | handwritten ps |
| | | | | 31% | | typed ps |
| Childers & Skinner,1985 | insurancepolicyholders | 1,500 | 500/500 | 61.3% | + 3.8% | computer generated name and address (vs. labels) |
| Clark & Kaminski, 1988 | marketing subscribers | 1,000 | | 37.5% | + 11.4% | handwritten cover letter (vs. form letter) |
| Clausen & Ford, 1947 | veterans - initial nonrespondents | 1,700 | 700/600 | 35% | - 3% | personal signature |
| Clausen & Ford, 1947 | veterans - initial nonrespondents | 1,700 | 700/600 | 38% | + 3% | personal salutation |
| Cookingham, 1985 | alumni | 340 | | 80% | + 2% | address typed on envelope (vs. labels) |
| Cookingham, 1985 | alumni | 340 | | 63% | - 2% | address typed on envelope (vs. labels) |
| Cox, Anderson & Fulcher, 1974 | general public | 4,000 | | 21.5% | + 7.4% | personalized cover letter |
| Dillman & Frey, 1974 (with 2 followups) | alumni | 891 | | 77.1% | + 8.4% | personalized cover letter: addresses, salutation, signature |
| Fields & Paksoy, 1991 | general public | 5,000 | | 31.6% | - 4.4% | addressed envelopes (vs. labels) |
| Fields & Paksoy, 1991 | general public | 5,000 | | 34.7% | + 1.8% | personalized: inside address, personal salutation, addressed envelope (vs. label) |
| Gitelson & Drogin, 1992 (with 2 followups) | farm show attendees nonrespondents | 300 | | 17% | + 4% | personalized salutation, signature |
| Green & Kvidahl, 1989 | teachers | 600 | | 73% | + 10% | pers letter, salutation, address, signature |
| after 2 followups | | | | 76.7% | + 11% | personalized |
| Green & Stager, 1986 (with 2 followups) | teachers | 750 | | 83.3% | + 4.2% | salutation (*Dear* name) by hand (vs. *Dear Educator*) |
| Green & Stager, 1986 (with 2 followups) | teachers | 750 | | 77.7% | - 5.4% | hand signed |
| Hawes, Critenden, & Crittenden, 1987 | supermarket exec | 472 | | 40.4% | + 7.2% | individually typed, inside address, *Dear Mr,* signature |
| Horowitz & Sedlacek, 1974 | professors | 600 | 240/240 | 68.8% | + 2.5% | personally signed |

Table 9. Personalization (continued)

| Study | Population | N | En/Cn | Reponse Rate | Difference | Condition |
|---|---|---|---|---|---|---|
| Houston & Jefferson, 1975 | new car buyers | 400 | | 34.0% | - 15.5% | personalized |
| Kawash & Aleamoni, 1971 | university faculty | 3,091 | | 28.5% | + 1.3% | hand signed |
| Kerin, 1974 | general public | 659 | | 42.9 | + 2% | personal cover letter, PS, *Dear MR/Mrs,* signed |
| Kerin & Harvey, 1976 | Fortune 500 companies | 440 | | 42.3% | + 13.2% | individual cover letters |
| Kernan, 1971 | general public | 400 | | 37.0% | - 1.5% | envelope addressed to respondent by name (vs. occupant) |
| | | | | 42.9% | - 1.5% | personalized letter, salutation and signature, hand addressed envelope |
| Kimball, 1961 | electronics mfrs | 3,000 | 1,000/1,000 | 30.3% | + 0.1% | personal address (vs *Dear Sir*) |
| Linsky, 1965 | nurses | 912 | | 40.4% | + 7.6% | handwritten salutation & signature |
| Martin & McConnell, 1973 | general public | 240 | | 18.3% | + 1.6% | individually typed letter, signed |
| Martin et al.,1984 | university students | 2,000 | | 24.3% | + 2% | personalized |
| Matteson, 1974 | professional organization | 2,123 | | 31.9% | + 9.9% | address, personalized salutation, signed |
| Moore, 1941 | superintendents | 494 | | 62.2% | + 9.5% | typed cover letter (vs. duplicated) |
| after reminder | | | | 81.9% | + 16.3% | typed |
| Peterson, 1975 | consumers | 3,840 | | 27.2% | nd | typed address (vs. label) |
| Roberts, McCrory & Forthofer, 1978 | dentists | 1,190 | | 32.0% | + 1.4% | personalized salutation |
| after 1 followup | | | | 50.2% | - 0.9% | personalized salutation |
| after 2 followups | | | | 70.0% | + 2.4% | personalized salutation |
| Shale, 1987 | course dropouts | 196 | | 39.8% | + 1% | personalized letter, signed |
| Simon, 1967 | magazine readers/employees | | 50/450 | 28% | + 2% | personally typed cover letter (vs. mimeo) |
| | general pubic | | 50/450 | 46% | + 8% | personally typed cover letter (vs. mimeo) |
| Simon, 1967 | magazine readers/employees | | 120/120 | 51.7% | - 7.5% | personally typed cover letter (vs. mimeo) |
| | general public | | 100/100 | 60% | + 7% | personally typed cover letter (vs. mimeo) |
| Simon, 1967 | hospital insurance plan subscribers | | 100/874 | 53% | + 15% | personally typed letters (vs. mimeo) |
| Smith & Bers, 1987 | alumni | 856 | | 47% | +7% | personalized: *"Dear Ann"*, signed, typed address on envelope, stamped r return envelope, stamped *"Alumni Ssurvey"*, handwritten postcard with commemorative stamp |
| | | | | 40% | | not personalized, labels, bulk mail, etc |
| Steele, Schwendig, &. Reilly, 1989 | unknown | 719 | | 36.3% | + 5.9% | handwritten address on envelope (vs. label) |
| | | | | 29.4% | - 1% | typed onto envelope (vs. label) |
| Sutton & Zeits, 1992 (with 3 followups) | business customers | 1,063 | 139/114 | 62% | + 2% | personalized (use of name on mailings) |
| Sutton & Zeits, 1992 (with 3 followups) | trade allies | 215 | 46/93 | 67% | + 2% | personalized (use of name on mailings) |
| Watson, 1965 | Business Week subscribers | 10,500 | 500/1,000 | 30% | + 2% | name and address on letter questionnaire |
| Watson, 1965 | Business Week subscribers | 10,500 | 500/1,000 | 28% | - 2% | *Dear Mr.* _____ (vs. Dear Sir) |

Table 9. Personalization (continued)

| Study | Population | N | En/Cn | Reponse Rate | Difference | Condition |
|---|---|---|---|---|---|---|
| Weilbacher & Walsh, 1952 | alumni | 472 | | 41% | - 4% | personalized letter,last name, signed |
| Woodward & McKelvie, 1985 | college business & social science students | 400 | | 31% | + 5% | box number + *Dear Mr/Ms.* Surname (vs. box no. only) |
| | | | | 29% | + 3% | box number + *Dear Mr/Ms.* Christian & Surname |
| | | | | 41% | + 15% | box number + *Dear* Nickname |
| Worthen & Valcarce, 1985 | teachers | 1,000 | | 27.6% | + 4.8% | personalized letter, typed, addressed by name, signed |
| b. Personalization Effects on Followup Mailings | | | | | | |
| Andreason, 1970 | lottery winners | 515 | | 36.4% | - 4.3% | handwritten followup (vs. mimeographed) |
| Carpenter, 1974 | general public | | | | | |
| | | | 302 | 64.3% | | labels,Dear Arizonan,hand signed |
| | | | 302 | 66.0% | | name/add on ltrs,window envelopes, |
| | | | 302 | 72.2% | | typed ltr w name/add, hand signed, typed envelopes |
| | | | 2,269 | 71.3% | | typed envelopes, names/add typed on letters,hand signed (control) |
| | (with 3 followups) | | | | | |
| Dillman & Frey, 1974 on 3rd followup | alumni | 216 NR | 45 | 73.3% | | personalized, all four mailings |
| | | | 46 | 50.0% | | personalized first three,high personalized fourth |
| | | | 61 | 45.9% | | not personalized, all four mailings |
| | | | 64 | 45.3% | | not personalized first three, highly personalized fourth |
| Worthen & Valcarce, 1985 | teachers | 730 NR | 177 | 35.6% | | personalized followup (after pers. first) |
| | | | 188 | 29.8% | | personalized followup (after form first) |
| | | | 177 | 26.6% | | form followup (after pers. first) |
| | | | 188 | 30.4% | | form followup (after form first) |

## Table 10

## Appeals

| Study | Population | N | n | Reponse Rate | Difference | Condition |
|---|---|---|---|---|---|---|
| a. Control Group Studies | | | | | | |
| Childers, Pride & Ferrell., 1980 | American Marketing Assn. (academicians) | 700 | | 39%<br>38%<br>28% | - 5%<br>- 6%<br>- 16% | postscript (ps) - egoistic<br>ps - social utility<br>ps - help the sponsor |
| Childers et al.., 1980 | business practitioners | 1,001 | | 31%<br>34%<br>33% | nd<br>+ 3%<br>+ 2% | egoistic<br>help the sponsor<br>social utility |
| Frazier & Bird, 1958 | general public | 7,000 | | 31.4% | + 6.7% | ps - help the sponsor |
| Linsky, 1965 | nurses | 912 | | 35.7% -<br>36.4%<br>42.5% | 0.9%<br>+ 0.4%<br>+ 12.7% | social utility<br>help the researchers<br>importance of respondent |
| Martin & McConnell, 1973 | general public | 240 | | 14.2% | - 6.6% | importance of respondent |
| Pressley 1978 (with 1 followup) | executives | 343 | | 40.0% | -2.8% | handwritten ps (appreciation) |
| Pressley 1978 (with 2 followups) | executives | 356 | | 44.4% | -1.7% | handwritten ps (appreciation) |
| Roberts, McCrory & Forthofer, 1978 | dentists | 1,190 | | 29.8% | - 3.0% | social appeal |
| after 1 followup | | | | 49.4% | - 2.6% | social appeal |
| after 2 followups | | | | 68.1% | - 1.4% | social appeal |
| b. Comparison Group Studies - Egoistic, Altruistic, Social Utility, Help the Sponsor | | | | | | |
| Champion & Sear, 1969 | general public | 2,290 | | 36.8%<br>33.2% | | egoistic<br>altruistic |
| Green, Jacobi, Lam, Boser, & Hall, 1993 | teachers | 1,500 | | 47.1%<br>46.1% | | social utility<br>user |
| Houston & Nevin, 1977 | general public | 2,000 | | 43.0%<br>41.2%<br>40.8%<br>40.4% | | social utility<br>egoistic<br>help the sponsor<br>combined |
| Jones & Lang, 1980 | home buyers | 2,926 | | 26.4%<br>23.2% | | social utility<br>egoistic |
| Kerin & Harvey, 1976 | Fortune 500 companies | 440 | | 41.4%<br>30.0% | | altruistic<br>egoistic |
| Sletto, 1940 | alumni | 300 | | 67%<br>64%<br>60% | | altruistic<br>social utility<br>challenge to complete |
| Tollefson and others, 1984 | teachers | 1,200 | | 50.8%<br>49.3%<br>23.3% | | help the sponsor<br>social utility<br>egoistic |
| Tyagi, 1989 | insurance sales | 600 | | 79.7%<br>58.3% | | egoistic<br>altruistic |

Table 10. Appeals (continued)

| Study | Population | N | n | Reponse Rate | Difference | Condition |
|---|---|---|---|---|---|---|
| c. Unique Conditions | | | | | | |
| Goulet, 1977 (on third wave) | company presidents | 621(NR) | | 11.6% | | direct appeal |
| | | | | 5.9% | | addressee choice |
| | | | | 11.3% | | open-end elaboration |
| | | | | 16.4% | | why not/new chance |
| Green Jacobi et al., 1993 | teachers | 1500 | | 47.7% | | authority |
| | | | | 45.5% | | affiliation/support |
| Hendrick, Borden, Giesen, Murray, & Seyfried, 1972 | general public | 400 | | 21.0% | + 1.0% | respondent ingratiation |
| | | | | 18.3% | - 4.5% | solicitor ingratiation |
| | | | | 15.5% | - 3.5% | both (versus neither) |
| | | | | 23.8% | + 4.8% | one only (versus neither) |
| Hoppe, 1952 | motorists | | 318 | 46.8% | | general letter |
| | | | 477 | 57.0% | | selected by chance |
| | | | 2,040 | 64.3% | | plea |
| Hoppe, 1952 | motorists | | 1,189 | 19.6% | | general letter |
| | | | 275 | 32.0% | | plea |
| Hornik 1982 (appeal as part of advance contact, compared with group not contacted) | general public | 640 | 135/100 | 68.9% | + 32.9% | ingratiation |
| | | | 135/100 | 60.7% | + 24.7% | polite request |
| | | | 135/100 | 51.1% | + 15.1% | rhetorical question |
| | | | 135/100 | 47.4% | + 11.4% | statement |
| Jones & Linda, 1978 (with 1 followup) | meeting planners | 4212 | | 31.0% | | user appeal |
| | | | | 31.0% | | science appeal |
| | | | | 26.3% | | resort park appeal |
| Sirken Pifer & Brown, 1960 | families of decedents? | 658 | | 50% | | firm cover letter |
| | | | | 32% | | permissive (help the sponsor) |
| after 1 followup | | | | 72% | | firm |
| | | | | 59% | | permissive |
| after 2 followups | | | | 89% | | firm |
| | | | | 87% | | permissive |
| after personal interview | | | | 94% | | firm |
| | | | | 95% | | permissive |

Note: Definitions/examples of various appeals

| | |
|---|---|
| Egoistic (Childers et al., 1980) | "Your opinions are important. It's important for you to express your opinion so we will know more about the types of ___ that you desire" |
| Social utility (Childers et al., 1980) | "Your opinion can help provide information that contributes to understanding more about _____." |
| Help the sponsor (Childers et al., 1980) | "We need your assistance. Your opinions are very important to our successful completion of this study." |
| Direct appeal (Goulet) | Brief, one-paragraph request to complete the questionnaire |
| Addressee choice (Goulet) | Request for at least partial completion and left selection of questions to the respondent |
| Open-end elaboration (Goulet) | Asked only that the two open-end questions at the end of the questionnaire be answered |
| Why not/new chance (Goulet) | Requested addressee to assist researcher by explaining why he did not respond and offering him another chance to complete the attached questionnaire. |
| Authority (Green et al, 1993) | "As a professional, we ask that you contribute your expertise." |
| Affiliation (Green et al., 1993) | "As a fellow educators, we ask that you join with other New Mexico teachers." |
| Respondent ingratiation (Hendrick) | Adjectives flattering respondent in cover letter: "generous, kind, gracious unselfish, very kind" |
| Solicitor ingratiation (Hendrick) | Adjectives flattering solicitor included in cover letter: "earnestly, sincerely, genuinely, respectfully, extremely (grateful), humbly, sincerely" |
| Plea (Hoppe) | "Please do not let your failure to return this card make it impossible for us to obtain a 100 per cent return." |
| Ingratiation (Hornik, 1982) | "We are earnestly asking for your generous help in completing and returning the questionnaire." |
| Polite imperative (Hornik, 1982) | "Please complete and questionnaire and please return it to us." |
| Rhetorical question (Hornik) | "Won't you complete and return the questionnaire to us." |
| Statement (Hornik) | "The aim of this call is to ask you to complete the questionnaire and return it to us." |
| User appeal (Jones & Linda) | Help researchers better understand interests and needs of respondents. Respondents will be better served as a result. |
| Science appeal (Jones & Linda) | There hasn't been a scientific study of the topic. |
| Resort park appeal (Jones & Linda) | Help researchers understand interests and needs. Facilities, services that are provided will be improved. |
| Place/importance of the respondent (Linsky) | Respondent is part of a small group selected for the study from among larger population. Emphasizes that people in the group are best able to provide the information in the survey. The value of the results depend on receiving all questionnaires. |
| Help the sponsor (Linsky) | Need the help of the respondent |
| Social Utility (Linsky) | As this study..l.is the first in the country, all eyes will be on Washington. A report of results will be made to ... later this year. This study will improve ...ability to provide its membership with opportunitites for prof growth as well as strengthen the position of the nursing in the community. |
| Appreciation (Pressley) | "In anticipation of your cooperation, please accept my personal thanks." |
| Altruistic (Sletto) | Called upon the individual to help improve things for students (other individuals) who followed them |
| Social utility (Sletto) | Called attention to changes in education and requested help of respondents to guide the changes |
| Challenge | Challenged recipient to help do somethat that people said couldn't be done. People believed the study would not succeed because alumni are too busy or not interested enough to participate |
| ps | a postscript that usually contains an appeal to encourage the individual to respond |
| Permissive (Sirken) | Requested that the respondent "help us in this study" |
| Firm (Sirken) | Matter of fact statement, "Your health department requests that you complete the form and return it within the next few days. |

## Table 11

### Outgoing Postage - First Mailing

| Study | Population | N | n | Reponse Rate | Condition |
|---|---|---|---|---|---|
| **a. Special Mail versus First Class/Regular Mail** | | | | | |
| Anderson Niebuhr & Gum, 1987 (with 1 followup) | doctors | 132 | | 54%<br>34% | Federal Express<br>first class |
| Champion & Sear, 1969 | general public (nonrespondents) | 300 | | 61.2%<br>41.9% | special delivery<br>regular mail |
| Echternacht, 1973 | high school students | 120 | | 41.7%<br>26.7% | certified mail (30 cents + 1st class)<br>first class mail |
| Gitelson & Drogin, 1992 (with 3 followups) | farm show attendees (nonrespondents) | 300 | | 43%<br>17% | certified mail<br>regular mail |
| Kephart & Bressler, 1958 | nurses | 300 | | 66%<br>60%<br>52% | special delivery<br>air mail<br>regular mail |
| Tedin & Hofstetter, 1982 | general public | | 331<br>1,012 | 26%<br>14% | certified mail<br>first class |
| after 1 (first class) followup | | | | 44%<br>31% | certified mail<br>first class |
| **b. First Class versus Other Third Class or Bulk Mail** | | | | | |
| Gitelson et al., 1993 | road race participants | 1,200 | | 60.5%<br>63.0%<br>64.5% | first class<br>metered<br>bulk mail |
| Gullahorn & Gullahorn, 1963 | former grantees | 7,570 | | 51.4%<br>48.6% | first class<br>third class |
| Keman, 1971 | general public | 400 | | 38.5%<br>36% | first class stamp<br>bulk rate |
| McCrohan & Lowe, 1981 | new car owners | 1,000 | | 33.4%<br>30.8% | metered first class<br>metered third class |
| Watson, 1965 | Business Week subscribers | 10,500 | | 33%<br>30% | first class<br>third class |
| **c. Stamped versus Metered/Permit Postage** | | | | | |
| Clark & Kaminski, 1988 | marketing journal subscribers | 1,000 | | 33.3%<br>30.4% | first class postage stamp<br>nonprofit mailing permit |
| Clausen & Ford, 1947 | veterans - initial<br>nonrespondents | 1,700 | 400<br>400 | 61%<br>36% | air mail & special delivery<br>franked |
| Dillman, 1972 | general public | 4,500 | | 24.2%<br>23.8% | ecology stamps on first mailing<br>metered |
| Hensley, 1974 | teachers | 530 | | 56.7%<br>58.7%<br>58.0% | commemorative stamp<br>regular stamp<br>metered |
| Peterson, 1975 | consumers | 3,840 | | 27.8%<br>26.6% | stamped<br>metered |
| Vocino, 1977 with 1 followup | American Society for Public Administration | 1,400 | | 34.1%<br>36.8% | commemorative stamp<br>metered |
| **d. Stamp combinations** | | | | | |
| Longworth, 1953 | general public | 100 | | 21%<br>19% | one cent, two cent, and a three cent stamp<br>one 6 cent stamp |

## Table 12

### Outgoing Postage - Followup Mailings

| Study | Population | N | n | Reponse Rate | Condition |
|---|---|---|---|---|---|
| Anderson Niebuhr & Gum, 1987 (with 1 followup) | doctors | 132 | | 54% | outgoingfirst mailing Federal Express |
| | | | | 34% | first class |
| after 2nd followup sent Fed Ex to all NR | | | | 62% | those originally sent Fed Ex |
| | | | | 49% | those originally sent first class |
| after phone followups | | | | 85% | those originally sent Fed Ex |
| | | | | 75% | those originally sent first class |
| Dillman, 1972 | general public | | | 30.0% | postcard 1st followup - new postmark |
| | nonrespondents | | | 31.1% | old postmark |
| Gullahorn & Gullahorn, 1959 (with 1 followup) | former grant recipients | 168 | | 62.4% | special delivery on second followup |
| | nonrespondents | | | 34.9% | regular mail |
| House Gerber & McMichael, 1977 (with general posted notices, personal reminders, mail) | employees | | 281 | 42.7% | certified mail |
| | nonrespondents | | 368 | 25.8% | first class |
| | | | 341 | 20.2% | personal followup handed out by supervisors |
| Phillips, 1951 (after 1 followup) | alumni | | 27 | 25.9% | first class mail on third mailing |
| | nonrespondents | | 14 | 64.3% | special delivery on third mailing |
| Sirken Pifer & Brown, 1960 | doctors | 1731 | 872 | 60% | first wave |
| | | | 859 | 65% | |
| after 1 followup | | | | 92% | certified mail reminder (+ 32% from first wave) |
| | | | | 86% | regular mail reminder (+ 21% |
| after 1, 2 followups | | | | 92% | certified mail reminder only |
| | | | | 96% | regular mail reminder followed by certified mail |
| after 2,3 followups | | | | 97% | certified mail, then phone |
| | | | | 98% | regular mail, certified, then phone reminder |
| Sirken Pifer & Brown, 1960 | families of decedents | | | | |
| | | 1436 | 480 | 40% | after 1st mailing |
| | | | 483 | 45% | |
| | | | 473 | 44% | |
| after followup | | | | 68% | regular mail first followup (+ 28% over first mailing) |
| | | | | 83% | regular mail first followup (+ 38%) |
| | | | | 89% | certified mail first followup (+ 45%) |
| after second followup | | | | 90% | regular mail + certified mail |
| | | | | 97% | regular mail + personal interview |
| | | | | 97% | certified mail + personal interview |

## Table 13

### Return Postage

| Study | Population | N | n | Reponse Rate | Difference | Condition |
|---|---|---|---|---|---|---|
| a. First Class Stamped Return Envelopes Compared With Business Reply Envelopes | | | | | | |
| Clark & Kaminski, 1988 | marketing subscribers | 1,000 | | 35.3% | + 6.9% | first class stamped |
| Corcoran, 1985 | social workers | 300 | | 45.3% | + 11.3% | first class stamped |
| after 1 followup | | | | 50% | + 4% | stamped |
| Elkind Tryon & deVito, 1986 | psychologists | 500 | | 48.0% | + 3.2% | stamped |
| after 1 followup | | | | 64.4% | - 0.4% | stamped |
| Finn, 1983 | general public | 943 | 466/477 | 32.3% | + 11.7% | first class stamped |
| Gullahorn & Gullahorn, 1963 | former grantees | 7,570 | | 51.8% | + 3.5% | stamped return |
| Hammond, 1959 | general public - males | 2,008 | | 42.6% | + 9.3% | stamped |
| Harris & Guffey, 1978 | consumers | 990 | 451/439 | 36.4% | + 6.1% | stamped |
| Hewett, 1974 | general public | 1,760 | | 50.7% | + 8.5% | stamped |
| Jones & Linda, 1978 | meeting planners | 4,212 | | 32.7% | + 7.9% | first class stamp |
| Martin, Duncan & Sawyer, 1984 | university students | 2,000 | | 23.0% | - 0.5% | stamped |
| Martin & McConnell, 1973 | general public | 240 | | 22.5% | + 10% | commemorative stamp |
| Peterson, 1975 | consumers | 3,840 | | 25.6% | - 3.2% | stamped |
| Veiga, 1974 | managers | 100 | | 80% | + 23% | preaddressed stamped envelope |
| Watson, 1965 | Business Week subscribers | 10,500 | | 30% | + 9% | 5 cent stamp (1st class) |
| Wiseman, 1973 | general public | 464 | | 49.1% | + 12.5% | stamped |
| b. Other Variations on Return Postage | | | | | | |
| Glisan & Grimm, 1982 | farmers | 1,512 | | 17.5%<br>21.3% | | commemorative stamp<br>regular return postage |
| Hensley, 1974 | teachers | 530 | | 58.3%<br>54.3%<br>60.7% | | commemorative stamp<br>regular stamp<br>metered |
| Jones & Linda, 1978 | meeting planners | 4,212 | | 30.9%<br>32.7% | | commemorative stamp<br>regular first class stamp |
| Labrecque, 1978 | marina custoners | 200 | | 46.9%<br>43.4% | | commemorative stamp<br>regular stamps |
| Kimball, 1961 | electronics mfrs | 3,000 | 1,000/1,000 | 39.7%<br>32.1% | | air mail stamp<br>air mail permit |
| McCrohan & Lowe, 1981 | new car owners | 1,000 | | 32.6%<br>31.6% | | metered first class<br>mailing permit |
| Veiga, 1974 | managers | 100 | | 82%<br>80% | | inter plant mail system<br>preaddressed stamped envelope |
| Watson, 1965 | Business Week subscribers | 10,500 | 1,000<br>500<br>500 | 30%<br>35%<br>29% | | .05 stamp (control) (first class) (1,000)<br>five .01 stamps<br>commemorative stamp |

## Table 14

### Effect of Stating Deadlines and Using Colored Paper in Questionnaires

| Study | Population | N | En/Cn | Reponse Rate | Difference E - C | Condition |
|---|---|---|---|---|---|---|
| a. Deadline | | | | | | |
| Futrell & Hise, 1982 | industrial accountants | 500 | | 20.4% | + 3.2% | same day deadline |
| Henley, 1976 | general public | 1,000 | | 28.8% | + 4.7% | 1 week deadline |
| Nevin & Ford, 1976 | university students | 1,040 | | 43.0% | - 6.8% | 5 day deadline |
| | | | | 48.5% | - 1.3% | 7 day deadline |
| | | | | 53.4% | + 3.6% | 9 day deadline |
| Pressley, 1978 (with 1 followup) | executives | 343 | | 42.1% | + 1.4% | 5 day deadline |
| Pressley, 1978 (with 1 followup) | executives | 356 | | 43.3% | - 3.9% | 5 day deadline |
| Roberts, McCrory & Forthofer, 1978 | dentists | 1,190 | | 34.7% | + 5.8% | deadline |
| after 1 followup | | | | 54.3% | + 7.3% | |
| after 2 followups | | | | 70.1% | + 2.6% | |
| Vocino, 1977 (with 1-2 followups) | professional organization members | 1,400 | | 32.6% | - 50.8% | 1 week deadline |
| b. Colored Paper | | | | | | |
| Glisan & Grimm, 1982 | farmers | 1,512 | | 20.0% | - 0.2% | tan |
| | | | | 17.9% | - 2.3% | blue |
| Greer & Lohtia, 1994 | sales executives | 800 | | 14.5% | + 0.5% | yellow |
| | | | | 15.5% | + 1.5% | pink |
| | | | | 14.5% | + 0.5% | green |
| Gullahorn & Gullahorn, 1963 | fomer grant recipients | 7,370 | | 50.9% | + 1.6% | green |
| LaGarce & Kuhn, 1995 | Goodyear dealers | 3,540 | | 17.6% | + 4.3% | blue & yellow |
| Matteson, 1974 | professional organization members | 2,123 | | 28.3% | + 2.7% | pink |
| Pressley & Tullar, 1977 (with 1 followup) | market research directors | 280 | | 38.8% | - 4.9% | yellow |
| | | | | 35.8% | - 7.9% | blue |
| | | | | 37.3% | - 6.4% | green |
| | | | | 37.3% | - 6.4% | color (versus white) |
| Pucel, Nelson & Wheeler, 1971 | vocational tech graduates | | 100/100 | 50.0% | + 7.1% | light green |

## Table 15

### Anonymity - Effect of Including or Requesting Identifying Information

| Study | Population | N | En/Cn | Reponse Rate | Difference | Condition |
|---|---|---|---|---|---|---|
| a. Control Group Studies | | | | | | |
| Albaum, 1987 | credit union members | 600 | | 50.3% | + 7% | coded/explained |
| Erdos & Regier, 1977 (with 1 followup | Wall Street Journal subscribers | | 400/400 | 47% | + 2% | coded |
| Erdos & Regier, 1977 | Wall Street Journal subscribers | | 400/400 | 57% | - 3% | coded |
| Hoppe, 1952 | motorists | 1464 | | 21.7% | - 0.7% | coded |
| Hoppe, 1952 | motorists | 1835 | | 64.6% | - 1.2% | coded |
| King, Francis, 1970 | college students | 200 | | 63% | - 4% | coded |
| King, Francis, 1970 (2nd study) | college students | 200 | | 68% | - 2% | coded |
| McKee, 1992 | nonprofit professional organization members | 280 | | 58.6% | +20% | coded/explained |
| after followup | | | | 77.1% | +22.8% | coded |
| Stevens, 1974 | alumni | 200 | | 57% | - 2% | coded |
| Wildman, 1977 | teachers | 320 | | 66% | nd | coded |
| Watson, 1965 | Business Week subscribers | 10,500 | 500/1,000 | 30% | + 2% | name/address on letter questionnaire |
| Fuller, 1974 | Navy officers | 12,376 | | 51% | +11% | service # requested |
| Fuller, 1974 | Navy enlisted men | 29,565 | | 36% | - 3% | service # requested |
| Futrell & Swan, 1977 (with 2 followups) | hospital supply salesmen | 201 | | 72% | + 4% | identified (name requested) |
| McDaniel & Rao, 1981 | appliance purchasers | 810 | | 24.1% | - 2.4% | name requested |
| b. Comparison Group Studies | | | | | | |
| Childers & Skinner, 1985 | insurance policyholders | 1500 | 500/500 | 61.3% | | preprinted name/address on return envelope |
| | | | | 57.5% | | envelope with *FROM*: and 3 blank lines |
| Childers & Skinner, 1985 | insurance policyholders | 1500 | 500/500 | 59.5% | | reason for ID/request for name |
| | | | | 59.3% | | no message |
| Erdos & Regier, 1977 (with 1 followup) | Wall Street Journal subscribers | 800 | | 51% | | ID number, not mentioned |
| | | | | 45% | | ID, reference in letter |
| | | | | 46% | | ID, option to remove |
| | | | | 45% | | control, no ID |
| Futrell & Hise, 1982 | industrial accountants | 500 | | 23.6% | | anonymity statement in cover letter |
| | | | | 14.0% | | anonymity not mentioned |
| Mason, Dressel & Bain, 1961 | beginning teachers | 741 | | 80.5% | | ID code number on form |
| | | | | 80.8% | | ID code + name and address on form |
| Shale, 1987 | course dropouts | 196 | | 35.7% | | option to remove precoded personal information |
| | | | | 42.9% | | not mentioned |
| Tyagi, 1989 | insurance salespeople | 600 | | 75.7% | | anonymity statement |
| | | | | 62.3% | | not mentioned |

Note. En = number in Experimental (ID coded) group; Cn = number in control (or uncoded - anonymous) group

## Table 16

### Questionnaire Length

| Study | Population | N | n | Reponse Rate | Condition |
|---|---|---|---|---|---|
| Adams & Gale, 1982 | university students | 1650 | | 41% | 1 page |
| | | | | 47% | 3 pages |
| | | | | 22% | 5 pages |
| Berdie, 1973 | professors | 108 | | 64% | 1 page, 10 questions |
| | | | | 56% | 2 pages, 20 questions |
| | | | | 42% | 4 pages, 40 questions |
| Biner & Kidd, 1994 | general public | 200 | | 54% | 1 page, 10 questions |
| | | | | 45% | 5 pages, 50 questions |
| Brown, 1965 | physicians | 523 | | 68% | postcard, 2 screening questions |
| | | | | 53% | 1 page |
| after followup | | | | 92% | postcard |
| | | | | 91% | 1 page |
| after second (phone) reminder | | | | 95% | postcard |
| | | | | 95% | 1 page |
| Dillman, Sinclair & Clark, 1993 | general public | 17,000 | | 63.4% | 1 page 2 sides folded |
| | | | | 66.8% | booklet 8 pages (same items as above but only had to list residents once |
| | | | | 71.4% | micro - 1 page both sides respondent friendly fewer questions - 5 per resident |
| | | | | 68.0% | Micro (as above) but asking soc security numbers |
| | | | | 70.9% | card stock 5 1/2 x 12, only names & birthdates |
| Hansen & Robinson, 1980 | general public | 600 | | 43.3% | short, 32 questions |
| | | | | 31.7% | long, 102 questions |
| Hendrick et al, 1972 | general public | 400 | | 23% | 1 page, 24 items |
| | | | | 18% | 7 pages, 182 items |
| Jacobs, 1986 | students | 200 | | 71% | 1 page, 14 items |
| | | | | 75% | 2 pages, 20 items |
| after reminder | | | | 81% | 1 page, 14 items |
| | | | | 79% | 2 pages, 20 items |
| Mason, Dressel & Bain, 1961 | beginning teachers | 741 | | 82.0% | 6 pages, 62 items |
| | | | | 79.3% | 8 pages, 92 items |
| Munger & Loyd, 1988 | school principals | | 207 | 63% | 2 pages, 27 items |
| | | | 100 | 53% | 5 pages, 61 items |
| Newman, 1962 | magazine subscribers | 375 | | 43.1% | 2 pages |
| | | | | 49.3% | 4 pages |
| Powers& Alderman, 1982 | high school juniors | 2012 | | 51.9% | 6 pages, 20 questions, 69 responses |
| | | | | 43.6% | 7 pages, 28 questions, 83 responses |
| Roscoe Lang & Sheth, 1975 | phone customers | 2144 | | 67.05% | 4 pages, 28 items |
| | survey nonrespondents | | | 67.45% | 6 pages, 54 items |
| Rudd & Maxwell, 1980 | general public | 1200 | | 32% | 1 page, 15 items |
| | | | | 34% | 3 pages, 45 items |
| Sletto, 1940 (with 3 followups) | alumni | 300 | | 68% | 10 page vocational questionnaire |
| | | | | 60% | 25 page social-civic questionnaire |
| | | | | 63% | both questionnaires, 35 pages |

## Table 17

## Questionnaire Layout/Format Variations Using Same Questions

| Study | Population | N | Reponse Rate | Condition |
|---|---|---|---|---|
| Boser, 1990a | alumni | 300 | 38.4% | 8 1/2 x 11, stapled, typed |
| | | | 44.0% | 11 x 17 folded, booklet, professional font |
| after 1 followup | | | 54.1% | 8 1/2 x 11 |
| | | | 60.0% | booklet |
| Boser, 1990a | alumni | 297 | 39.0% | typed 8 1/2 x 11 |
| | | | 41.4% | legal size, folded into booklet |
| after reminder | | | 52.7% | typed |
| | | | 55.2% | booklet |
| after 2nd followup | | | 67.1% | typed |
| | | | 70.3% | booklet |
| after 3rd followup | | | 78.8% | typed |
| | | | 75.9% | booklet |
| Champion & Sear, 1969 | general public | 2,290 | 27.5% | 3 pages |
| | | | 38.4% | 6 pages |
| | | | 39.4% | 9 pages |
| after followup | | 300 | 48.9% | 3 pages |
| | | | 53.5% | 6 pages |
| | | | 52.0% | 9 pages |
| Childers & Ferrell, 1979 | American Marketing Assn. members practitioners | 440 | 38% | 8 1/2 x 11 |
| | | | 28% | 8 1/2 x 14 |
| | | | 36% | printing on front and back (1 sheet) |
| | | | 30% | printing on front only (2 sheets) |
| Dillman, Sinclair & Clark, 1993 17,000 for 5 groups | general public | 17,000 | 66.8% | booklet - 8 pages, 8 1/2 x 11 |
| | | | 63.4% | control - 1 page 2 sided, folded 10 1/2 x 28 |
| Enger, Manning, Shain, Talbert, & Wright, 1992 | alumni | 7,078 | 27.9% | 2 pages |
| | | | 26.3% | 1 page (smaller type) |
| | | | 23.3% | 1 page/self mailer |
| Ford, 1968 | general public | 1,556 | 22% | printed, folder-type, 1 sheet folded, both sides, four 8 1/2 x 11 |
| | | | 20% | mimeographed legal-size, stapled, 4 p 8 1/2 x 11 one side only |
| Goldstein & Friedman, 1975 | travel agents | 1,200 | 74.2% | 8 1/2 x 11 " form with 1 followup |
| | | | 54.9% | double postcard |
| | | | 53.9% | both postcards |
| | | | 71.1% | form both times |
| | | | 66.8% | mixed |
| Hesseldenz & Smith, 1977 | alumni | 1,056 | 84.1% | offset printed (personalized by typewriter) |
| | | | 84.7% | computer prepared with personalization |
| Horowitz & Sedlacek, 1974 | professors | 600 | 73.3% | typed (120 |
| | | | 70.8% | photocopied120 |
| | | | 66.7% | mimeographed 120 |
| Jacobs, 1986 | teachers | 200 | 72% | optical scan sheets |
| | | | 74% | no scan sheet |
| after reminder | | | 81% | op scan sheets |
| | | | 79% | without scan sheet |
| Johnson, Parsons, Warnecke & Kaluzny, 1993, (4 followups) | physicians | 2,106 | 64.2% | booklet 8 1/2 x 11 |
| | | | 58.5% | booklet reduced to 5 1/2 x 8 1/2 |
| LaGarce & Kuhn, 1995 | Goodyear dealers | 3,540 | 17.9% | user friendly - less technical appearance, larger font, |
| | | | 7.7% | standard questionnaire |
| | | | 16.8% | user friendly plus colored qre |
| Tollefson et al., 1984 | teachers | 1,200 | 53.3% | large format |
| | | | 45.2% | small format |
| Wilde, Tonigan & Gordon, 1988 | instructors + national lab employees | 426 | 43.7% | 3 pages |
| | | | 48.9% | 5 pages |

## Table 18

### Survey Procedures

| Study | Population | N | n | Reponse Rate | Condition |
|---|---|---|---|---|---|
| a. Mailing Address | | | | | |
| Ferrell , Childers & Reukert, 1984 | marketing managers | 440 | | 30%<br>36% | mailed to home address<br>mailed to work address |
| McGinnis & Hollon, 1977 | packaging engineers | 238 | 98<br>109 | 66.3%<br>67.0% | mailed to home address<br>mailed to work address |
| Wildman, 1977 | teachers | 320 | | 61%<br>71% | mailed to home address<br>mailed to school address |
| b. Envelope Appearance | | | | | |
| Dommeyer, Elganayan and Umans, 1991 | home owners with FHA mortgage insurance | 200 | | 21%<br>8% | envelope teaser<br>no message |
| Elkind, Tryon & deVito, 1986 | psychologists | 500 | | 45.2%<br>47.6% | rubber stamped return address<br>university envelope |
| after 1 followup | | | | 66.0%<br>63.2% | stamped return address<br>university envelope |
| Watson, 1965 | Business Week subscribers | 10,500 | 500<br>1,000 | 27%<br>30% | *'Personal"* on outgoing envelope<br>no message |
| Watson, 1965 | Business Week subscribers | 10,500 | 500<br>1,000 | 28%<br>30% | *"Attention*: (signer of letter)" on return envelope<br>no statement |
| c. Commitment Cards | | | | | |
| Childers & Skinner, 1985 | insurance agents | 2,100 | 1,709<br>199<br>200 | 81%<br>83%<br>85% | card with choice of return time<br>card, no specified ime<br>no prior contact |
| Duhan & Wilson, 1990 | marketing executives | | 3,000 | 20.4%<br>66.1% | prenotification with card (of all in original group)<br>prenotification with card (questionnaires sent only to those who agreed to participate (N = 504) |
| | | | 1,000 | 32.3% | prenotification, no card |
| Hinrichs, 1975 | administrators | 2,547 | | 35.9%<br>38.5% | commitment card<br>no card |
| after followup | | | | 66.5%<br>62.5% | commitment card group<br>no card |
| Senf, 1987 (with 2 followups) | church members | 750 | | 55%<br>62% | postcard to indicate questionnaire had been returned<br>postcard with place to state intention to not participate and reason |

Note. Envelope teaser (Dommeyer, 1991) A statement stamped in black ink on the outer envelope: *"DID YOU KNOW YOU ARE ENTITLED TO MORE MONEY:"*

## Table 19

## Letter Content Variables

| Study | Population | N | Reponse Rate | Condition |
|---|---|---|---|---|
| **a. Cover Letter** | | | | |
| Hawkins, 1979 (with 1 followup) | general public | 930 | 36.3% | full disclosure of right to refuse to participate |
| | | | 41.1% | no reference |
| Rucker, Hughes, Thompson, Harrison, & Vanderlip, 1984 | alumni | 384 | 32.3% | photo of professionally dressed female letter |
| | | | 26.8% | photo of casually dressed female |
| | | | 31.0% | no photo on cover letter |
| after 2 followups | | | 46.8% | professionally dressed female |
| | | | 53.8% | casually dressed female |
| | | | 63.3% | no photo |
| Wagner & O'Toole, 1985 | psychology department heads | 106 | 45% | typical serious letter, personalized |
| | | | 11% | humorous + free meal offer, impersonal |
| after followup | | | 83% | traditional |
| | | | 13% | humorous |
| **b. Time Cue** | | | | |
| Hornik, 1981 | general public | 600 | 41.5% | 20 minute time cue |
| | | | 25.1% | 40 minute time cue |
| | | | 31.5% | no time cue (control) |
| Finlay & Thisthlewaite, 1992 | general public | 1206 | 41.8% | 10 minute time cue |
| | | | 46.9% | a few minutes cue |
| Tollefson et al., 1984 | teachers | 1,200 | 41.5% | 15 minute time cue |
| | | | 57.5% | 30 minute time cue |
| | | | 49.3% | no time cue (control) |
| **c. Statement Regarding Intent of Incentive** | | | | |
| Biner & Barton, 1990 | general public | 200 | 66.0% | obligation |
| | | | 52.6% | appreciation |
| Biner & Kidd, 1994 | general public | 200 | 56% | obligation |
| | | | 42% | appreciation |
| Robin & Walters, 1976 | general public | 1522 | 42.7% | represents cost of second mailing |
| | | | 40.8% | appreciation (use for coffee/coke) |
| | | | 37.9% | appreciation |
| | | | 40.6% | no message |
| **d. Followup Letter Message** | | | | |
| Dommeyer, 1987 | general public (NR) | 1,059 | | If no response, interview attempt would be made |
| | | | 16% | by phone on specified date |
| | | | 20% | by phone in 2 week period |
| | | | 12% | in person on specified date |
| | | | 19% | in person in 2 week period |
| | | | 19% | control, no message regarding interview |

## Table 20

## Questionnaire Variables

| Study | Population | N | n | Reponse Rate | Condition |
|---|---|---|---|---|---|
| a. Questionnaire Content | | | | | |
| Dillman, Sinclair & Clark, 1993 | general public | 17,000 | | 68.0% | social security number requested |
| | | | | 71.4% | not requested |
| Sheth, LeClaire & Wachspress, 1980 (with 2 followups) | AT&T customers | 1,200 | | 73.1% | asked race information |
| | | | | 73.3% | no race information |
| Swan & Epley, 1981 | real estate agents | 1,000 | | 50% | income categories in $5,000 intervals |
| | | | | 50% | $10,000 categories |
| Swan & Epley, 1981 | real estate agents | 1,000 | | 51% | asked to check one income category |
| | | | | 49% | allowed to check two adjacent categories |
| Watson, 1965 | Business Week subscribers | 10,500 | 500 | 31% | inclusion of corporate image question |
| | | | 500 | 40% | omission of classification question |
| | | | 500 | 28% | three competitors on questionnaire |
| | | | 500 | 28% | unaided-recall question on products |
| | | | 1,000 | 30% | control |
| b. Question Order | | | | | |
| Frey, 1991 | skydivers | 841 | | 50.7% | behavior (easy) questions first |
| | | | | 52.9% | cognitive/analytical questions first |
| Jones & Lang, 1980 | home buyers | 2,926 | | 27.8% | attributes (semantic differential) asked first |
| | | | | 23.2% | anchored similarity judgment scales first |
| Martin & McConnell, 1973 | general public | 240 | | 21.7% | easy questionnaire first |
| | | | | 13.3% | hard questionnaire first |

## Table 21

## Study Context

| Study | Population | N | n | Reponse Rate | Condition |
|---|---|---|---|---|---|
| a. Population | | | | | |
| Gelb, 1975 | general public | 400 | | 49.5% | middle class |
| | | | | 30.0% | lower class |
| Rudd & Maxwell, 1980 | general public | 1,200 | | 34% | large city A |
| | | | | 36% | large city B |
| | | | | 28% | small town |
| b. Topic, Salience | | | | | |
| Martin, 1994 | amateur bowlers | 1,731 | 1,152 | 34.9% | survey about bowlers |
| | | | 579 | 18.3% | survey about restaurants |
| Rudd & Maxwell, 1980 | general public | 1,200 | | 34% | health care |
| | | | | 36% | current issues |
| | | | | 31% | quality of life |
| | | | | 31% | taxes |
| Webb, 1989 | students, agriculture-related majors | | 810 | 41.6% | agriculture-related issues |
| | non-agriculture/undecided | | 2,549 | 40.4% | agriculture-related issues |
| Woodward & McKelvie, 1985 | business & social science students | 400 | | 60% | high interest questionnaire |
| | | | | 67% | low interest questionnaire |

TM025812

AERA April 8-12, 1996

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