Journal of Official Statistics, Vol. 15, No. 2, 1999, pp. 217–230

The Effect of Incentives on Response Rates in Interviewer-Mediated Surveys

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Incentives are known to increase response rates in mail surveys, and although they are increasingly being used in face-to-face and telephone surveys, there is much less information about their effects in those surveys, which differ radically in the demands they place on respondents. In this article, we analyze all the studies we have been able to locate that experiment with incentives in surveys done in person or by telephone in order to answer four questions: Do incentives improve response rates, and does the effect vary by mode of interviewing? Are prepaid incentives more effective than promised incentives? Is money more effective than a gift? What is the effect of interview burden on the effectiveness of incentives?

Key words: Response rate; survey; incentive; experiment.

1. Introduction

The use of incentives has a long history in mail surveys (for reviews, see Armstrong 1975; Church 1993; Cox 1976; Fox, Crask and Kim 1978; Heberlein and Baumgartner 1978; Kanuk and Berenson 1975; Levine and Gordon 1958; Linsky 1975; Yu and Cooper 1983). In such surveys, incentives, along with number of contacts, have consistently been found to increase response rates.

A meta analysis of the experimental literature on the effects of incentives in mail surveys (Church 1993) classifies incentives along two dimensions: whether the incentive is a monetary or nonmonetary reward; and whether it is offered with the initial mailing or made contingent on the return of the questionnaire. Analyzing 38 studies (yielding 74 comparisons between incentive and control conditions), Church concluded that:

- prepaid incentives yield higher response rates than promised incentives
- prepaid monetary incentives yield higher response rates than gifts offered with the initial mailing
- response rates increase with increasing amounts of money, though other research suggests it may do so at a decreasing rate (Armstrong 1975; Fox, Crask and Kim 1998)
- the offer of contingent (promised) money and gifts does not significantly increase response rates.

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Acknowledgments: Eleanor Singer is a Research Scientist, Nancy Gebler, Katherine McGonagle, and John Van Hoewyk are Senior Research Associates, and Trivellore Raghunathan is an Associate Research Scientist. The financial support of this research by the Survey Research Center of the Institute for Social Research is gratefully acknowledged.

In Church's (1993) analysis, studies using prepaid monetary incentives yielded an average increase in response rates of 19.1 percentage points, representing a 65% average increase in response. Gifts, on the other hand, yielded an average increase of 7.9 percentage points. The average value of the monetary incentive was $1.38; the average value of the gift could not be computed, given the great diversity of gifts offered and the absence of information on their cost.

Incentives are also being used increasingly in telephone and face-to-face surveys, but much less is known about their effectiveness with those modes of interviewing. Although Yu and Cooper (1983) included such studies in their analysis, they note that telephone surveys made up only about 10% and face-to-face surveys 14% of their total sample, and they do not present separate analyses for these modes. Inspection of their Table 3, which presents the effects of incentives on response rates, suggests that very few telephone or face-to-face studies – probably no more than 18 – used monetary incentives.

Comparison of the respondent's situation in mail and interviewer-mediated surveys suggests that, other things being equal, the need for a monetary incentive should be greater in mail surveys. This conclusion is based on the persuasive value generally attributed to the interviewer, as well as on the fact that the presence of an interviewer lessens the respondent's burden in completing the questionnaire. Thus, it is possible that the significantly positive effects of incentives documented for mail surveys will not be found in the case of interviewer-mediated surveys. On the other hand, since the investment per initial contact is fairly large in such surveys (relative to mail surveys), the *relative* cost of incentives in such surveys is low. Our aim in this analysis is not to compare mail and other surveys, since these are usually not interchangeable, but rather to estimate how much, if any, improvement in response rates can be achieved with incentives in such surveys.

In this article, we bring together and quantitatively analyze all the experimental studies we were able to locate as of November 1997 which use incentives in face-to-face or telephone surveys in order to better understand the effect of incentives on response rates in such surveys. The article attempts to answer four basis questions:

- Do incentives improve response rates in telephone and face-to-face surveys, and does their effect differ by mode of interviewing?
- Are prepaid incentives more effective than promised incentives?
- Is money more effective than a gift?
- What is the effect of burden?

Although we had hoped to be able to assess the effect of incentives on quality, bias, and cost as well as on response rates, the limited information available on these issues in the studies we located limits the inferences we can draw.

In what follows, we briefly describe the procedures used to locate eligible experiments, how the data were coded, and the results obtained from those data.

2. Identifying Experiments Using Incentives

We searched a variety of sources for experiments with respondent incentives, including computerized indexes such as the Wilson Indexes to Journals (which include publications from 1983 to present), Sociological Abstracts (dating back to 1974), and Psychological

Abstracts (dating back to 1967). Keywords searched included the intersection of incentive and response rate, survey and response rate, experiment and survey, survey and incentive, nonresponse and incentive, and experiment and incentive. We also reviewed proceedings of the American Association for Public Opinion Research (AAPOR) and the American Statistical Association, and material from COPAFS (the Council of Professional Associations on Federal Statistics), which had convened a conference on respondent incentives in 1992. A notice was sent out on AAPOR-Net, and we contacted colleagues at the Survey Research Center and other organizations asking for references or information on unpublished experiments. In addition, we reviewed the references from all meta analyses and literature reviews, as well as the references from all articles containing information on incentives in telephone and face-to-face surveys.

Throughout this process, we reviewed well over 1,000 abstracts. After eliminating those that clearly referred to mail surveys, we reviewed over 100 articles and papers to find those that contained information on incentive experiments in telephone or face-to-face studies.

For the present analysis, we included only reports of controlled experiments with respondent incentives done on populations in the United States or Canada. The reason for limiting the analysis to controlled experiments, a procedure also followed by Church (1993) and by Yu and Cooper (1983), though the latter assembled other data sets as well, is to restrict extraneous variation associated with different incentives. Such factors are especially troublesome when the number of possible confounding factors is large relative to the number of studies available for analysis, as it is in this case. Because the meaning of gifts as well as monetary incentives is likely to differ between cultures, and also because we were less confident about our ability to retrieve all relevant studies of incentives in countries other than the United States and Canada, the analysis is limited geographically as well. Thus, the surveys analyzed in this article consist of telephone and face-to-face studies, or those using a combination of telephone or face-to-face interviewing with a self-administered questionnaire, test, or diary, which include an experiment involving incentives and were done in the U.S. or Canada. We found a total of 39 experiments[2] meeting these criteria, each containing at least two, sometimes more, experimental conditions. Fifteen of the 39 were reported in published studies; 14 were conference presentations, most reported in the conference proceedings; and 10 were other reports (e.g., final project reports, reports in a newsletter).

3 Coding Experimental Data

For each experimental condition, the following potential independent variables were coded:

- ► Amount of incentive
- ► Type of incentive (gift or money)
- ► Timing of incentive (paid before interview taken, or promised)
- ► Burden (coded as high if interview was longer than an hour[3] or if any of the following were present: diary, test, sensitive questions, panel study; otherwise coded as low)

[2] We have analysed these as 39 separate experiments although four reports contained information about more than one experiment (a total of nine altogether). Thus, there are 34 reports containing 39 experiments.

[3] In *Providing Incentives to Survey Respondents: Final Report,* COPAFS (1993) discusses the one-hour interview as the "standard," not warranting incentives to respondents. Accordingly, we adopted this as the cutoff for low-burden interviews.

The dependent variable was the difference in response rates between the zero incentive condition (or the lowest incentive condition) and each higher incentive condition in the same experiment (see the Analysis section, below, for a more detailed description). The following study-level dependent variables were also coded:

- Quality indicator: Did the incentive affect quality of data, as measured by item non-response or number of words in response to open-ended questions?
- Cost indicator: Did the incentive affect the per-interview cost?
- Sample bias indicator: Did the incentive influence the demographic composition of the experimental condition, relative to the control condition?

Information concerning these dependent variables was available in only a handful of the studies we examined, and usually only in qualitative form.

Because we expected respondent willingness to participate, and therefore potentially the effect of the incentive, to vary according to the respondent's previous experience, we coded whether or not the respondent had previously been interviewed on the survey (panel respondent), or had refused an interview prior to the incentive experiment, either in the current wave of interviewing or at a previous wave (refuser), or had never been approached for an interview before in connection with the current survey (fresh sample). Most of the experiments were carried out with respondents who had not previously been approached for an interview.

The following descriptive variables were also coded for each article:

- Date of publication
- Mode (face-to-face, telephone)
- Location of sample (national, local)
- Sample type (probability, list, quota or convenience)
- Population studied (general population, special subgroup)
- Year of interview
- Survey organization doing the interviewing (government, nonprofit, for profit)

Thirty-nine experiments, representing 101 different experimental conditions, are included in this analysis. The largest number of studies was face to face (69%); 31% were done by telephone. Thirteen of the experiments included a self-administered component in addition to an interviewer-mediated contact. Most of the experiments are fairly recent (21% were reported in the 1970's, 28% in the 1980's, and 51% in the 1990's.)

As already noted, in order to limit variability in the meaning of monetary and other incentives, we restricted the analysis to experiments done in Canada or the United States. The large majority of the experiments (82%) used probability samples, but a few used list, convenience, or other types of samples. In terms of location, the studies are split fairly evenly between national samples (44%) and local or regional samples (56%). Many of the local samples were actually pilot studies for large national surveys, mounted to try to identify the best incentive amount or method of payment. The experimental conditions ranged in size from 23 to 20,034, with a median size of 333 respondents per experimental condition; as noted below, response rates are weighted

by sample size in the analysis.[4] Nonprofit, nongovernmental organizations carried out 36 percent of the experiments; government organizations conducted 21 percent; and 44 percent were done by for profit organizations.

As already mentioned, each study included in this analysis reported the results of a controlled experiment. Most of the experiments compared the effects of differing amounts of incentives, but some varied only the timing of the payment, or compared the results of offering nonmonetary versus monetary incentives. The incentive amounts varied from 1 USD to 100 USD, but 60% were relatively small (less than 10 USD). The mean value of the incentive paid in this study, among conditions in which any monetary incentive was paid, was 11.39 USD (11.84 USD in constant 1983 dollars, in which the analysis was run). A variety of nonmonetary incentives (pens, diaries, calendars) were offered; in four of the eight studies using such incentives, the authors reported the dollar value; in the other four we assigned a value based on other studies – e.g., 2 USD for a ballpoint pen, and 5 USD for a solar-powered calculator – and included these values in the analysis as well. As in other studies, the value of nonmonetary incentives was less than that of monetary incentives. One experiment contrasted a no-incentive condition with a lottery, which we coded as a monetary incentive with a value equivalent to the prize divided by the number of subjects in that experimental condition – that is, the expected value of the incentive per respondent.[5]

The studies used in the meta analysis are listed in the Appendix.

4 Analysis

The analytic strategy we adopted tries to compensate for the small number of observations (which makes it difficult to control for possible confounding variables) by looking at the comparison of experimental conditions within the same study. Thus, the dependent variable is the difference in response rates between the zero incentive condition and each higher incentive condition *in the same experiment.* So, for example, if a study had three experimental conditions – a zero-incentive condition, a 5 USD incentive, and a 10 USD incentive – we computed two dependent variables for that experiment: the difference in response rate between the zero-incentive and 5 USD condition, and the difference between the zero-incentive and the 10 USD condition. (In three experiments, there was no zero-incentive condition, and in those we computed the difference between the lowest incentive condition and all higher incentive conditions instead.) These differences were weighted by the inverse

[4] The findings were sensitive to the results of one very large study, and this study has been omitted from the models shown in Table 1. The study was an experiment carried out by the U.S. Census Bureau on the first wave of the 1996 Survey of Income and Program Participation. This is a face-to-face study, using three incentive conditions – 0 USD, 10 USD, and 20 USD – with approximately 10,000 respondents in each of the three conditions. The response rates in all conditions were over 90%, and there was a (significant) difference of about 1.5 percentage points in favor of the 20 USD condition as compared with the zero condition, but an insignificant effect in favor of the 10 USD. Effects were larger in the poverty stratum than in the nonpoverty stratum. Potential respondents in all households were given "prepaid" vouchers that were to be exchanged for checks two to three weeks after the initial contact, regardless of whether or not an interview had been completed. As a result of the large sample size and the high response rates, the weight that this study would have assumed in the overall analysis was 60,000, overwhelming all other studies in the analysis. Accordingly, the decision was made to exclude this experiment from the formal analysis presented in Table 1. The results are not sensitive to the inclusion or exclusion of other large studies, nor do they change when unweighted data are substituted for weighted data.

[5] Although Church (1993) coded lotteries as nonmonetary incentives, lotteries with a cash prize clearly fall into the monetary incentive category, and we have analyzed them in this fashion. There are, in any case, so few lotteries that their treatment cannot alter the results one way or the other.

of the variance of the response rate difference in the analysis. This procedure has the effect of giving larger weight to more precise comparisons – i.e., those based on larger samples.

The effect of the decision to use as the dependent variable response rate differences within the same study (also adopted by Armstrong and Lusk 1987, Fox, Crask, and Kim 1988, and Church 1993) is to control automatically for many other variables known to affect response rates – for example, the type of sample, the agency carrying out the survey, the year of the study – since these are constant across each pair of experimental conditions. We therefore avoid confounding the effects of these other variables with the effects of the incentives that may be associated with them.

The independent variable in the analysis is the difference in the size of the incentive between the two experimental conditions, which, when the comparison is between a zero-incentive and an incentive condition, reduces to the size of the incentive. An analysis of variance approach was used to estimate the size and significance of the effect of incentives on the difference in response rates between the experimental and the control conditions.[6]

In order to eliminate confounding due to differential cooperation tendencies, we introduced a covariate which we call "panel status" into all the analyses reported below. Panel status simply refers to whether the subjects in the experiment were new respondents, nonrespondents to the current or a prior wave, or respondents to a previous wave. Twenty-six of the 39 experiments involved only fresh respondents; 3, nonrespondents; 6, panel respondents; and 4, both fresh and panel respondents. Because these variables were not significant in any of the models, we did not include them in the final models shown.[7]

Prior research by Church (1993) indicates that gifts have lower effects on response rates than cash. However, differences in the effects of cash and gifts in telephone and face-to-face surveys may arise from two characteristics that may be confounded with these two types of incentive – i.e., whether or not the incentive is prepaid or promised, and the size of the incentive. Although the value of gifts is generally less than the value of cash incentives, it is also less easily calculable. Thus, gifts may function more easily as a token of appreciation, whereas cash may be more likely to be perceived as compensation for the respondent's time. To avoid confounding these various potential effects on response rates, we control for gift versus cash, prepaid versus promised, and the actual value of the gift or cash in all the analyses reported below.

Two other variables were controlled in the analysis as well. One is the burden imposed by the interview; the other is the mode of interviewing. Interactions between these variables and the incentive difference were also estimated.

5. Results

Without controlling for any other variables, the difference between a zero-incentive and an incentive condition results in a significant difference in response rates between the two

[6] This is also the dependent variable used by Kanuk and Berenson (1975) and Zusman and Duby (1987). Other investigators have used different dependent variables, such as the percent decrease in nonresponse rate, the relative incremental cost per individual response achieved, the percent increase in response rate, and the effect size *d* (Hunter, Schmidt, Jackson 1982). See Church (1993:66-7) for a review.

[7] In a further effort to reduce variation, we excluded from the analysis results for four conditions in a Hispanic subsample in one of the studies coded, because the response rates, ranging from 10 to 19 percent, were so much lower than those for other studies. The results do not change in any significant way when these four conditions are included in the analysis.

Table 1. Effects of incentive amount, time of payment, type of incentive and burden on differences in response rate

	Model 1 Zero vs. larger incentive conditions		Model 2 Smallest vs. larger incentive conditions	
	Beta	Standard error	Beta	Standard error
Intercept	1.709	1.547	1.411	1.568
Incentive difference/dollar[a]	0.215	0.099**	0.201	0.099**
Prepayment	0.602	2.203	2.823	1.785
Gift	-4.369	2.240*	-6.902	1.482***
Burden	2.514	1.433*	3.289	1.310**
Adj. R^2	.30		.36	
N	(55)		(59)	

[a]"Incentive difference" refers to the difference between the smallest (or zero) incentive and larger incentive amounts paid. Incentive amounts are modeled in constant 1983 dollars.
*p<.10
**p<.05
***p<.01

conditions: B=0.339, $S.E.$=0.077, p<.01. That is, on average, each dollar of incentive paid results in about a third of a percentage point difference between the incentive and the zero-incentive condition. The results of the remaining analyses are shown in Table 1.[8] The first model shown in Table 1 compares incentive with a zero incentive condition. The model controls for amount of incentive; timing of incentive; type of incentive; and burden. As noted above, the effects of mode, and the interactions between mode and incentive and burden and incentive, were also estimated. None of these variables was significant, and they have been trimmed from both models. We also examined the relationship between mode and prepayment. Since prepayment is difficult to accomplish with a telephone interview, it seemed possible that mode might be confounded with time of payment. However, there is no significant association between the two variables: X^2=.013, df=1, p=.91. Most of the studies, even when done face-to-face, promised incentives rather than prepaying them.

As can be seen from Model 1, paying an incentive has a significant positive effect (p<.05). As in the study by Yu and Cooper (1983), the effects of incentives are linear. We introduced a term for the square of the incentive to difference test for curvilinearity; this term was significant in neither model. Within the limits of incentives and response rates occurring in these experiments, more money results in higher response rates.

The difference in response rates produced by prepayment vs. promised payment is not significant in this model, but the direction of the differences is in accord with conventional wisdom – i.e., prepayment appears to be more effective than promised payments. When we look only at the experiments that hold size of incentive constant and compare prepayment and promised payment directly, we find in every case that prepayment yields higher response rates than the promised payment condition. However, unlike Church (1993) but like Yu and Cooper (1983), we found a significant improvement in response rates with promised incentives (p=.06 in both models; data not shown).

Like Church (1993), we found that gifts are significantly less effective in eliciting response, even controlling for the value of the incentive. Increasing the burden of the

[8] The analyses were run in SAS using the Regression Procedure.

interview – defined as either a long interview or some additional task imposed on the respondent beyond the interview itself, or a combination of the two – increases the difference in response rates between an incentive and a zero-incentive condition ($p<.10$). The interaction between the burden and the size of the incentive difference is not significant, however.

The second model in Table 1 includes, in addition to experiments with a zero-incentive condition, all those that compare the smallest with larger incentive conditions. These results parallel those shown in Model 1.

The question has been raised whether incentives are necessary in low-burden telephone or face-to-face interviews. We cannot answer that question, but we can answer the question whether incentives have a significant effect on response rates in such interviews. We reran the analysis above, restricting the sample to low-burden conditions. The effect of incentives remains significant in that model ($B=0.398$, $S.E.=0.124$; $p<.01$; data not shown).

We also reran the analysis excluding those studies ($n=12$) in which a diary, test, or other self-administered instrument is a significant part of the total survey burden. The effect of the incentive remains significant ($B=0.342$, $S.E.=0.117$, $p<.01$) in that model (data not shown).

We introduced two additional stratifying variables into the analysis to check on the generality of the results. One of these is the response rate associated with the lowest incentive condition. We suspected that the effects of incentives would be less at higher rates of responding, and indeed the coefficients associated with initial response rate are significant and negative in both models ($B=-0.104$, $S.E.=0.032$, $p<.01$ in Model 1 and $B=-0.108$, $S.E.=0.032$, $p<.01$ in Model 2; data not shown.) That is, the higher the initial response rate, the less the difference in response rate between the zero-incentive and the incentive condition.

The other stratifying variable we examined is the publication status of the report. For each study, we coded whether the results were reported in a journal, a proceedings volume, or some other unpublished form. About one third of the reports included in the analysis fall into each of those three categories. The "file drawer" hypothesis (Rosenthal, 1991, 103ff., 128) would predict that unpublished reports would show a smaller effect than the published ones, but the coefficients are not consistent in sign and are significant in neither model (data not shown).

Because some studies contributed more than one pair of conditions to the analysis,[9] we reran these analyses in SUDAAN, which controls for the clustering of results within studies. The effects of all the independent variables except prepayment and burden remain significant in these models; burden is significant at the .10 level in Model 2.

As far as we can tell from the rather sparse information provided in the studies we examined, incentives do not appear to exact a price in quality (i.e., item nonresponse or number of words in response to open-ended questions). In seven of the 13 studies that provide some information about quality, there was no difference in data quality between conditions with and without incentives; in the other six, incentives yielded better quality. Paying an incentive may alter the composition of the sample, however. In three studies,

[9] The number of pairs from any one experiment varies from one model to another. In the worst case, one experiment contributed four pairs to the analysis.

there is an indication that paying an incentive may be useful in obtaining higher numbers of respondents in demographic categories that might otherwise tend to be underrepresented in sample surveys (e.g., low income or nonwhite race). Five other studies reported no significant effects of incentives on sample composition, and in one study the results were mixed.

The biggest deficiency in these studies is the absence of data on the costs of surveys with and without incentives. Although incentives represent a survey cost, it may be that other costs – number of calls on respondents and supervisory costs, for example – are reduced as a result. Future studies should make every effort to collect and report such data.

6 Conclusions

From the findings we have reported, we conclude that paying an incentive is effective in increasing response rates in telephone and face-to-face surveys, as has been demonstrated consistently in mail surveys. This is true in all types of surveys, and not merely in those involving high burden for the respondent; and it appears to be true for panel respondents, fresh respondents, and those who have refused to respond. At the same time, the effects of incentives are relatively modest once other variables have been controlled.

Although some interpretations of exchange theory might lead one to predict that gifts would be more effective than an equivalent amount of cash in eliciting an increase in response,[10] gifts in this study were less effective in increasing response rates than cash, even with the value of the incentive controlled – a finding which again replicates mail survey results. And although the effects of prepayment were not significantly better than promised payments in either model, prepayment was significant in five experiments in which we were able to make the comparison between prepaid and promised incentives within the same study (and in which, therefore, all other factors are held constant). However, like Yu and Cooper (1983), we found that promising an incentive does produce a significant increase in response rates over conditions in which no incentive is offered at all.

Although on theoretical grounds one might expect that incentives would be especially useful in improving response rates when the burden of an interview is high, we did not find a significant interaction between burden and incentive. The effect of incentives is significant even in low-burden telephone or face-to-face surveys – i.e., in those lasting less than an hour and entailing no additional activity on the part of the respondent. However, the effect of incentives is inversely proportional to the response rate: the higher the response rate associated with the zero-incentive condition, the smaller the effect of an incentive.

Although very few of the studies we examined provided pertinent data, it appears that paying incentives does not impair the quality of the data obtained, and it may induce participation on the part of groups who would otherwise be underrepresented in the survey.

This analysis answers a number of questions relevant to the effect of incentives in face-to-face and telephone studies, but it is hampered by the small number of experimental studies of incentives available for analysis and the consequent difficulty of controlling

[10] As a nonspecific token of appreciation, gifts might seem to run less risk of backfiring than a monetary incentive, which runs the risk of being perceived as a — possibly inadequate — payment for the respondent's time.

all potentially confounding and mediating variables. In addition, the findings are silent on a number of related issues:

1. First, how cost-effective are various kinds and amounts of incentives, compared with other methods of increasing response rates, such as increased interviewer training or additional callbacks? None of the studies we examined contained good data on costs. Ideally, we would want to take into account not only the increase in response rates but also the potential savings in interviewer and supervisory time, travel and long-distance phone expenses, and so on, which can be attributed to incentives.
2. Second, do incentives have different effects on respondents with different characteristics – e.g., on men and women, richer and poorer respondents, or interested versus uninterested respondents?
3. Third, what is the long-term effect of paying incentives on the expectations of the pool of survey respondents? Does this effect operate through the expectations of interviewers?
4. Finally, what are respondents' reactions to the use of incentives, especially the use of differential payments to bring into the sample people who had previously refused?

Research to answer some of these questions is currently underway.

Appendix

Studies Included in Meta Analysis

Berk, Marc L., Nancy A. Mathiowetz, Edward P. Ward, and Andrew A. White (1987). The Effect of Prepaid and Promised Incentives: Results of a Controlled Experiment. Journal of Official Statistics 3(4), 449–457. (*National Medical Expenditures Study, feasibility study of general population in eight cities, involving in-person or telephone interviewing and SAQ's.*)

Berlin, Martha, Leyla Mohadjer, Joseph Waksberg, Andrew Kolstad, Irwin Kirsch, D. Rock, and Kentaro Yamamoto (1992). An Experiment in Monetary Incentives. Proceedings of Survey Research Methods Section of the American Statistical Association, pp. 393–398. (*National Study of Adult Literacy in general population, involving face-to-face interviewing and completion of test booklets.*)

Brehm, John (1994). Stubbing Our Toes for a Foot in the Door? Prior Contact, Incentives and Survey Response. International Journal of Public Opinion Research 6(1), 45–63. (*National survey of attitude change in general population as a result of Persian Gulf War.)*

Cannell, Charles and Graham Kalton (1992). Progress Report on Applied Research on the Design and Conduct of Surveys of Adolescent Health Behaviors and Characteristics. Submitted to The Association of Schools of Public Health. Ann Arbor: University of Michigan, Survey Research Center, February 1992. (*Face-to-face interviews of Detroit adolescents on health behaviors and characteristics.*)

Cantor, David, et al. (1997). "Promised Monetary Incentives on a Random Digit Dial Telephone Survey." Paper presented at the Eighth International Workshop on Household Nonresponse, Mannheim, Germany, September 1997. (*Reports on two experiments involving telephone interviews of the general population in selected sites about health care, employment, and child care experiences.*)

Chromy, James R. and Daniel G. Horvitz (1978). The Use of Monetary Incentives in National Assessment Household Surveys. Journal of the American Statistical Association, 73(363), 473–478. (*National survey of young adults to assess levels of knowledge, involving face-to-face interviews and completion of test booklets.*)

Dohrenwend, Barbara Snell (1970). An Experimental Study of Payments to Respondents. Public Opinion Quarterly 34, 621–624. (*Face-to-face panel study of Washington Heights sample on topic of urban living.*)

Findlay, Jean S., and Wesley L. Schaible (1980). A Study of the Effect of Increased Remuneration on Response in a Health and Nutrition Examination Survey. Proceedings of Survey Research Methods Section of the American Statistical Association, pp. 590–594. (*Local pilot study for National Health Examination Study, involving face-to-face interviews and health exams.*)

Goetz, Edward G,. Tom R. Tyler, and Fay Lomax Cook (1984). Promised Incentives in Media Research: A Look at Data Quality, Sample Representativeness, and Response Rate. Journal of Marketing Research 21, 148–154. (*Panel telephone study of attitude change in general population following watching of TV program in Chicago Metropolitan Area.*)

Goyder, John (1994). An Experiment with Cash Incentives on a Personal Interview Survey. Journal of the Marketing Research Society 36(4), 360–366. (*Face-to-face study of male and female employment histories in three Canadian cities.*)

Gunn, Walter J., and Isabelle N. Rhodes (1981). Physician Response Rate to a Telephone Survey: Effects of Monetary Incentive Level. Public Opinion Quarterly 45, 109–115. (*National telephone study of physicians on influenza immunization.*)

Kerachsky, Stuart H., and Charles D. Mallar (1981). The Effects of Monetary Payments on Survey Responses: Experimental Evidence from a Longitudinal Study of Economically Disadvantaged Youths. Proceedings of Survey Research Methods Section of the American Statistical Association, 258–263. (*National survey of work experience and training among economically disadvantaged youth, involving face-to-face and telephone interviews.*)

Kumar, S. and A. Durning (1992). The Impact of Incentives on the Response Rate for Famex 1990: An Evaluation. Working Paper No. SSMD 92–001 E, Social Survey Methods Division, Statistics Canada. (*Canadian national face-to-face study of family expenditures.*)

Lengacher, Jennie E., Colleen M. Sullivan, Mick P. Couper, Robert M. Groves, and Willard L. Rodgers (1995). Once Reluctant, Always Reluctant? Effects of Differential Incentives on Later Survey Participation in a Longitudinal Study. Proceedings of Survey Research Methods Section of the American Statistical Association, 1029–1034. (*Incentive experiments with nonrespondents to a national face-to-face survey of health and retirement.*)

McConochie, Roberta M., and Claude A. Rankin (1985). Effects of Monetary Premium Variations on Response/Nonresponse Bias: Representation of Black and Nonblack Respondents in Surveys of Radio Listening. Proceedings of Survey Research Methods Section of the American Statistical Association, pp. 42–45. (*Telephone survey of radio listening habits of households in five metro areas located in four census regions, involving diaries.*)

Melevin, Paul T., Don D. Dillman, Rodney Baxter, and C. Ellen Lamiman (1991). Personal Delivery of Mail Questionnaires for Household Surveys: A Test of Four Retrieval Methods. American Association for Public Opinion Research Meetings, Phoenix, AZ. (*Face-to-face delivery of SAQ's to assess employment training needs of economically disadvantaged males in Washington state.*)

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Received May 1997
Revised February 1999