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Informed Consent and Survey Response: A Summary of the Empirical Literature

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Abstract: This paper reviews the published literature on the consequences of informed consent procedures for the conduct of social research. It examines empirical studies of four elements of consent – information concerning the content of the interview and the purposes of the research; assurances of confidentiality or anonymity; active versus passive consent; and information concerning voluntary participation– asking in each case what the effect of the factor is on response rate, response quality, and respondent reactions. Because much of the research is more than ten years old and because issues of privacy and confidentiality appear to be more salient to respondents than ever before, a program of research into these issues would seem to be a useful undertaking.

Key words: Informed consent; social science; confidentiality; voluntary participation; passive consent.

1. Introduction

Survey researchers have always been concerned about the effect of survey introductions on the willingness of potential respondents to consent to an interview. That concern was accentuated during the 1970s, as a result of regulations mandating that the subjects of research be adequately informed about its risks and benefits, and as a result of the Privacy Act of 1974 (Dalenius 1983). It received a further impetus from the generally declining response rates observed during this period (Steeh 1981). And in the 1980s, the urgent need for research on sexual preferences and behavior, spurred on by AIDS, has raised even more forcefully the twin issues of how best to protect the confidentiality of respondents while at the same time persuading them to cooperate candidly in research (see, e.g., the reports on pretests for a national seroprevalence survey by Horvitz et al. 1990; Massey, Ezzati, and Folsom 1990; Turner 1990; and Fienberg 1990).

"Informed consent" is defined as follows in the federal regulations for the protection of human subjects (U.S. Department of Health, Education, and Welfare 1974, p. 18917):

"*Informed consent* means the knowing consent of an individual or his legally authorized representative, so situated as to be

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able to exercise free power of choice without undue inducement or any element of force, fraud, deceit, duress, or any other form of constraint or coercion."

The regulations go on to describe six elements of information necessary to assure such consent: (1) A fair explanation of the procedures to be followed and their purpose; (2) a description of discomforts and risks; (3) a description of benefits; (4) a disclosure of alternative methods; (5) an offer to answer any questions; and (6) a statement that the person is free to withdraw at any time without prejudice.

This definition of informed consent raises many conceptual as well as operational questions for the conduct of biomedical research (see, e.g., Gray 1978). It raises still other questions for the conduct of statistical investigations, such as those by federal statistical agencies like the U.S. Census Bureau, and for psychological experiments.

This summary reviews the published literature on the consequences of informed consent procedures for the conduct of social research since 1978. It excludes the much more numerous literature concerned primarily with informed consent in a therapeutic or biomedical research setting. It also omits the small body of research on comprehensibility of informed consent statements, most of which has been done in a biomedical context (e.g., Ogloff and Otto 1991; Sorrell 1991; Silva and Sorrell 1988; Taub 1986). Finally, it omits the large literature dealing with ethical concerns about informed consent which contains no empirical tests of its consequences for the conduct of social research; for a review of this literature, see Faden and Beauchamp (1986).

Thus, this review of the literature concentrates on empirical studies of four elements of informed consent: (1) information concerning the content of the interview and the purposes of the research; (2) assurances of confidentiality or anonymity; (3) active versus passive consent, including the requirement of a signature to document consent; and (4) information concerning voluntary participation. These four elements correspond roughly to the elements of informed consent which guideline (4) of the Privacy Protection Study Commission (1977) says should be provided to all potential respondents:

> Absent an explicit statutory requirement to the contrary, no individual should be required to divulge information about himself for a research or statistical purpose. To assure that there is no coercion or deception, the individual should be informed:
>
> a. that his participation is at all times voluntary;
> b. of the purposes and nature of the data collection;
> c. of the possibility, if any, that the information may be used or disclosed in individually identifiable form for additional research or statistical purposes;
> d. of any requirements for disclosure individually identifiable form required for purposes other than research and statistical use; and
> e. that if any such required disclosure is made for other than a research or statistical purpose, he will be promptly notified (quoted in Dalenius 1983, p. 91).

Sobal (1984) has carried out a study of what researchers actually do tell potential respondents about themselves and their research in survey introductions. The following information was disclosed in the introductions sent back by 45% of the sampled researchers, who were members of the American Association for Public Opinion Research: Name of research organization, 86%; inter-

viewer's name, 82%; research topic, 81%; sponsor, 45%; confidentiality, 42%; survey purpose, 26%; future data use, 24%; anonymity, 24%; sampling technique, 21%; survey length, 13%; statement that participation was voluntary, 10%; sample size, 4%. Only 4% of the 78 introductions examined by Sobal requested a signature to document consent.

It is clear from these data that few, if any, introductions included all the elements recommended by the Privacy Protection Study Commission. The reason, one surmises, is a belief on the part of survey researchers that when it comes to survey introductions, less is more: the less said before the interview begins, the better.

Motivated primarily by methodological considerations, this article reviews the evidence for this belief. It examines studies of the effects of each of the factors listed above (information on content and purpose, assurance of confidentiality, active vs. passive consent, and information concerning voluntary participation) on three dependent variables: response rate, response quality, and respondent reactions. However, not all studies include information on all three dependent variables. The review is not intended as a meta analysis. In some cases – notably the review of studies of randomized response – summaries of the literature were relied on, rather than the primary studies; and the methods of retrieval and analysis fall short of those recommended by Rosenthal (1991).[2]

[2] The following data bases were searched for entries since 1978 relevant to informed consent and surveys, informed consent and experiments, and passive consent: Psychological Abstracts, POPLINE, Public Affairs Information Service, Sociological Abstracts, Social Science Index, ERIC, and the ethics database at the Kennedy Institute of Ethics at Georgetown University. The references at the end of pertinent articles were also retrieved.

2. The Effect of Information about Content and Purpose

Prior to the spate of studies on informed consent procedures in the late 1970s (Singer 1978a, 1978b; National Research Council 1979; Reamer 1979; Singer and Frankel 1982; Singer 1984), conventional survey wisdom had advocated keeping the introduction *short*, so as not to lose the respondent's interest or attention; and some evidence from experiments with mail questionnaires had suggested that a *general* explanation of purpose was preferable to a more detailed one, which might antagonize some respondents (Blumberg, Fuller, and Hare 1974). At the same time, some investigators supported fuller disclosure of research purposes to respondents. Jourard (1964; 1968) and Jourard and Friedman (1970), for example, argued that the most powerful determinant of self-disclosure by experimental subjects was self-disclosure by the investigator. Some support for the efficacy of fuller disclosure came from a study by Hauck and Cox (1974), in which refusals were reduced after respondents had been given a more nearly complete and accurate description of the study's purpose.

In 1978 and 1979, the first results of two studies designed to assess the effect of so-called "informed consent procedures" in surveys were published. Singer (1978a) investigated the effects in face-to-face interviews of more (versus less) information about sensitive subject matter in survey introductions, as well as the effects of varying assurances of confidentiality and of requiring a signature to document consent (the latter two are reviewed below). She found no effect of varying information about content on response rates, a finding replicated by Sobal (1982). Nor did

the amount of information about survey content consistently affect either item response rates or the quality of response.

A subsequent study of the effects of survey introductions on response rates and response quality in telephone interviews, which varied information about the content as well as the purpose of the survey, replicated the earlier results (Singer and Frankel 1982). However, the authors cautioned that these findings were obtained for certain types of questions only, and that even the introductions containing more detail were not very explicit. Thus, more research was needed to establish the generality of the findings.

In addition to examining the effect of survey introductions on responses to the survey questions, Singer (1978b) also examined their effect on respondents' *reactions* to the survey by means of a self-administered questionnaire given to respondents at the conclusion of the interview. She found that an absolute assurance of confidentiality was associated with more favorable evaluations of various aspects of the survey; variations in the amount of information provided about content had no such effect. However, comments spontaneously offered by some of the respondents reinterviewed later for validation purposes indicate that the discrepancy between the "short form" introduction and the actual content of the interview did not go unobserved. One respondent said:

"I felt the interview did not ask much about leisure time which is what the interviewer said it would be about. I felt it dealt more with social adjustments to my life – my mental health .... I don't consider drinking, gambling, and sex as real ways to spend leisure time ...."

However, these comments also made clear the difficulty of adequately informing respondents. For example, one woman, who got the detailed description of interview content, said:

"I think the questionnaire was a little misleading. When she came in she said it was about what you did in your leisure time and I think it got too personal .... When she read what was going to be in it maybe I wasn't listening that close; ... I was very surprised."

In other analyses Singer (1979) tried to account for the processes by which survey introductions produced the observed effects on response rate and response quality. She found, for example, that people who were given the more detailed introduction (mentioning some of the sensitive topics that would be covered in the interview) were more likely to say, on the follow-up self-administered form, that they expected questions on those topics; and those who said they expected such questions also had lower rates of item-nonresponse and more admissions of sensitive behavior. But all of these relationships were quite small. As predicted, people who got more information ahead of time reported less upset and embarrassment at the questions; but again, differences between experimental conditions were small and the relationship of self-reported embarrassment to survey responses was not clear-cut. In a subsequent laboratory experiment by Holliman, Soileau, Hubbard, and Stevens (1986), students given a long consent form showed less anxiety (as measured by an anxiety scale) than those in a control condition; students given a short consent form did not differ from those in the control condition. These findings are consistent with the earlier results, but none of the studies provide guidance on how much detail is optimal in a survey introduction.

Summarizing the little that is known about the effects of information about the content of the interview on response, we can say the following:

1. Within the limits tested, information about content has no perceptible effect on response rates or quality.
2. However, respondents who are given more information about sensitive content are more likely to report, in retrospect, that they expected the questions and that they were not upset or embarrassed by them; they also show less measured anxiety on the State Scale of the State-Trait Anxiety Inventory.

3. The Effect of Anonymity and Assurances of Confidentiality

3.1. Anonymity

Prior to 1978, no research had been published on the effects of confidentiality assurances in surveys. But research on the closely related factor of anonymity suggested that mail response rates were not much affected either by the presence or absence of an identifying code, or by the form of identification used (Blumberg et al. 1974; Erdos and Regier 1977; Mason, Dressel, and Bain 1961; Mitchell 1939). Nor did the lack of anonymity appear to bias the responses of those who did agree to participate. Fuller (1974), for example, concluded from her review of the literature that the risk of significant bias was relatively small. Since then, two reviews of the literature on response rates have included anonymity among the predictor variables examined (Linsky 1975; Yu and Cooper 1983), but neither found a significant effect. Singer and Miller (1992a) reviewed more recent studies of the effects of anonymity on response rate and response quality. Of the eight studies reviewed, five (61.5%) supported the hypothesis that guarantees of anonymity would produce better response rates or quality than either identified data or verbal assurances of confidentiality, though not all did so at a statistically significant level.

3.2. Confidentiality

Experimental investigations of the role of confidentiality assurances in surveys began around 1975, spurred in part by the Privacy Act of 1974 (PL 93-579, December 31, 1974; 5 U.S.C.–552a), the Regulations for the Protection of Human Subjects (U.S. Department of Health, Education, and Welfare 1974), and the report of the Privacy Protection Study Commission (1977). Singer (1978a) found no effect of varying assurances of confidentiality on response rates. However, response rates to sensitive questions were affected by the type of confidentiality assurance given: Those respondents given an "absolute" assurance of confidentiality had lower nonresponse rates to 11 of 12 sensitive questions than those given either a qualified assurance or no assurance at all, with five of eleven statistically significant. There is also a suggestion that respondents given an absolute assurance of confidentiality gave "better" responses (i.e., higher estimates) to sensitive questions than those in other confidentiality conditions.

Singer (1979) found widespread inaccuracy in respondents' perceptions of how much confidentiality they had been promised, as well as wide variations in the degree of confidence they attached to these assurances. However, the perception that one had been given an absolute assurance of confidentiality was associated with higher estimates of income and of masturbation (the two most sensitive questions on the survey), and confidence in the inter-

viewer's assurance of confidentiality was associated with lower nonresponse rates to sensitive questions. But again, these effects were modest and not always consistent, indicating the need for further research to clarify the processes involved.

In 1979, the National Research Council published the results of its investigation of the effect of confidentiality assurances on survey response in face-to-face interviews. This investigation was explicitly designed to evaluate the importance of an assurance of confidentiality for responses to surveys done by the U.S. Census Bureau, which provided funds for the study.

The Census Bureau's interest was related both to its preparations for the 1980 census and to issues posed by survey research more generally. The study was designed to provide descriptive data on public attitudes toward various kinds of surveys and survey organizations and to test, experimentally, the effect of variations in confidentiality assurances on response rates and quality. The field experiment, carried out by Census Bureau interviewers, found that the refusal rate varied monotonically with the degree of confidentiality promised, ranging from 1.8% for the strongest assurance to 2.8% for the statement of no confidentiality. The increase in refusals was statistically significant, although differences between adjacent conditions were too small to reach statistical significance. Like Singer, the Council found that nonresponse to the income question, the most sensitive one on the survey, as well as estimates of income, were affected by the type of confidentiality assurance given. However, in both studies, respondents' verbalized concern with the confidentiality issue was greater than its apparent effect on their behavior in the interview.

Several studies have attempted to determine whether assurances of confidentiality offered by researchers may have had the unanticipated consequence of *increasing* respondents' concern about the survey. This question was addressed by Reamer (1979), in a study of juvenile status offenders – a population that may have considerable incentive to bias their answers to survey questions.

One-half of Reamer's subjects were given an introduction designed to reduce their apprehension about the interview by assuring them of the confidentiality of their responses; they were also given a certificate, signed by Reamer, guaranteeing confidentiality and anonymity. No mention of confidentiality was made to the other half of the subjects.

All youths were given a questionnaire including eight items to measure their apprehension about other people's finding out about their responses. The hypothesis was that those given special assurances of confidentiality would be less apprehensive. Instead, they turned out to be slightly more apprehensive on all measures; for scores on the total scale, $t = -1.82$, $p = .08$. With a few exceptions, which Reamer attributes to chance, there were no effects on response rates to individual items, nor on the quality of response. Reamer (1979, p. 504) notes that this result is congruent with results reported earlier by McGuire (1969), who found in reviewing a number of studies that an introduction designed to arouse suspicion of a speaker's intent affected subjects' attitudes toward the speaker but not their experimental reactions (changes of opinion following an attempt to persuade). Reamer's subjects were randomized into the two experimental conditions before interviewers attempted to contact them, and refusals were similar in the two conditions: 28% in the condition without special assurances, and 24.3% in the condition with special assurances.

In a subsequent study, Frey (1986) inserted a reminder of confidentiality in the middle of a survey questionnaire, just before the interviewer asked a series of demographic items on a telephone interview. (With the exception of income and religion, these items would probably not be considered sensitive.) Contrary to expectation, the confidentiality reminder led to significantly higher nonresponse on the income question, and to higher nonresponse to the other demographic questions as well, though those differences were not significant. Thus, there is some evidence in the survey literature that under certain circumstances confidentiality reminders may increase the suspicion of subjects, and perhaps even reduce their willingness to respond.

Singer, Hippler, and Schwarz (1992) argue that the inconsistent effects of confidentiality assurances observed in earlier trials may have resulted from the fact that an assurance of confidentiality, especially if it was detailed and elaborate, might have the effect of arousing respondents' suspicions rather than alleviating them, especially if the content of the interview was not sensitive. They suggest that more elaborate assurances may well be required if the content of the survey is sensitive, but they have so far not tested this hypothesis. In three different experiments carried out in Germany, they demonstrated that long, elaborate assurances of confidentiality, coupled with nonsensitive survey topics, led to higher refusals to participate than shorter confidentiality assurances, or even none at all. They also found support for the hypothesis that respondents given a more elaborate assurance of confidentiality will expect the questions to be more sensitive.

This last result was anticipated by Berman, McCombs, and Boruch (1977), who found no advantages for what they call the "contamination method", designed to assure respondents of the confidentiality of their replies. (The contamination method randomly introduces lies into the interview without the interviewer's knowing they are occurring – for example, as a result of the outcome of the roll of a pair of dice.) From post-experimental questions the authors concluded that this method had instead increased respondents' perceptions of the questions as sensitive, thus perhaps reducing their candor.

Altogether, 22 experimental variations in verbal assurances of confidentiality were reviewed by Singer and Miller (1992a). Of these, 61% provided support for the hypothesis that a greater assurance of confidentiality would improve either the rate or quality of response, though not all did so at a statistically significant level.

Most recently, an analysis of privacy and confidentiality as factors in response to the 1990 U.S. census was carried out by Singer, Mathiowetz and Couper (1993). Concerns about privacy and confidentiality significantly affected mail return rates to the census even when demographic characteristics known or assumed to be related to such concerns were controlled. The effects were not large in absolute terms – they explained less than 2% of the variance in mail return rates, over and above that explained by the demographic characteristics alone. Nevertheless, for White respondents the predicted effect of a reduction of two points on the confidentiality index is an increase in the likelihood of returning a census questionnaire of approximately three to six percentage points, depending on other characteristics of the respondent and the exact confidentiality score. For Black respondents, the effect of confidentiality concerns is curvilinear rather than linear.

With the exception of the experiments

reported by Singer, Hippler, and Schwarz (1992), the effects reported above derive from the American context, where, at least until recently, confidentiality issues have not been especially salient. In many European countries (e.g., Denmark, Sweden, Switzerland, Germany, the Netherlands), by way of contrast, concern about data protection and confidentiality has for many years been much greater than in the U.S. (McDonald 1984). If the issue of data confidentiality became more salient to the American public, one might expect it to result in much higher levels of nonresponse. Such a hypothesis is suggested by focus group discussions about confidentiality issues held under the auspices of the U.S. Census Bureau (Singer and Miller 1992b).

All the studies reviewed so far except Berman, McCombs and Boruch (1977) have used verbal guarantees of confidentiality only. But various other procedures have been developed to increase the confidentiality of the data and to encourage respondents' perception that their responses are, indeed, confidential. One of the best-known of these technical methods of assuring confidentiality was developed by Warner in 1965, and its applications have been reviewed by Fox and Tracy (1986) and, more recently, by Umesh and Peterson (1991). Known as randomized response (RR), it relies on pairing an innocuous question that has a known response distribution with a sensitive question whose response distribution is unknown. (Warner's original proposal was to present logical opposites of the same question – e.g., "I have had an abortion" and "I have never had an abortion" – with a coin toss used to determine which of the two questions the respondent was to answer.) In the two-question version, respondents are instructed to answer, at random, either the innocuous or the sensitive question. Using statistical theory, the investigator can estimate the response distribution – but not individual responses – to the sensitive question from the total response distribution, given his/her knowledge of the distribution of responses to the nonsensitive question.

Although this technique is still used relatively rarely, Fox and Tracy (1986) concluded (1) that the technique can be used to obtain sample estimates of sensitive attributes (they cite, among others, Horvitz, Shah, and Simmons 1967; Abernathy, Greenberg, and Horvitz 1970; Dawes 1974); (2) that the technique produces higher estimates than a simple questionnaire (Brown and Harding 1973; Reaser, Hartsock, and Hoehn 1975; Goodstadt and Gruson 1975; Tracy and Fox 1981); and (3) that the responses are more accurate, as assessed by validation studies. Some contrary evidence is reported by them, as well (Folsom 1974; Locander, Sudman, and Bradburn 1976). Durham and Lichtenstein (1983) concluded that when there are no threats to anonymity, when survey questions are not especially sensitive, and when the behaviors asked about are not infrequent, randomized response will not be superior to anonymous questionnaires.

Umesh and Peterson (1991) reviewed 13 studies comparing randomized response and direct questioning between 1976 and 1987, excluding those that did not provide enough information to calculate the significance of the difference. Ten of the 13 comparisons produced differences favoring RR, though not all were statistically significant. However, Umesh and Peterson reported that attempts to validate RR studies (for example, by using record checks) have yielded at best modest evidence of the validity of the estimates obtained by this method.

Summarizing this rather lengthy review of the effect of confidentiality assurances on response, we can say the following:

1. Verbal assurances of confidentiality seem to have modest effects on survey response rates and on response rates to sensitive items, as well as on estimates of the amount of income and the frequency of sensitive behavior.

2. Studies assuring respondents of anonymity, rather than confidentiality, likewise seem to produce modest effects.

3. Studies involving technical means of assuring confidentiality – e.g., randomized response – appear to yield higher estimates of sensitive behavior, but at a price in analytic flexibility. Such estimates are generally taken as evidence of greater validity. The effects of all three of these variables are not consistent across all studies, however.

4. Active vs. Passive Consent

In an experiment comparing "active" versus "passive" consent, Ellikson and Hawes (1989) found that the large majority of respondents who signified their consent by failing to mail back a card indicating their refusal did, indeed, intend to allow their children to participate in the research; whereas most of those who failed to mail back a card indicating their consent did not intend to refuse. Moberg and Piper (1990) report on a method of following up an initial mailing with a telephone contact. Their findings, too, support the conclusion that most failures to return a signed consent form do not signify refusal. However, it is also possible that the follow-up telephone call to parents in fact persuaded some who had initially intended to refuse, to participate.

An analogous finding was reported by Singer (1978a). Seven percent of respondents who were randomly assigned to a condition in which they were asked to sign a consent form refused to do so – a significant drop in response rate when compared with the two other experimental conditions. However, these respondents were perfectly willing to participate in the interview – they were simply not willing to sign the consent form. Similar findings are reported by Trice (1987b), who found that when subjects were asked to sign a consent form, the response rate was lower than when no signature was required.

Thus, there is some evidence that so-called "passive" consent methods capture the intentions of most potential respondents, and that "active" methods exclude some who in fact are willing to participate in the research, but not to sign their name.

5. Voluntary Participation

Ethical dealing, as well as good survey practice, require informing potential respondents that their participation in research is voluntary and that their refusal will not jeopardize them in any way. Yet, as we have seen, very few research organizations inform respondents of this fact (Sobal 1984), apparently in the belief that doing so will reduce the likelihood of response.

Most of the research findings reported below, on the effects of informing subjects that their participation is voluntary, derive from laboratory experiments and thus are of limited utility in predicting the behavior of survey respondents. But the findings, though somewhat contradictory, are intriguing.

On the matter of response rate, for example, Trice and Ogden (1987) report that when subjects are reminded of their right to withdraw from a longitudinal study at the point of data collection, more withdraw than when they are informed of this right at the beginning of the study only, and then

reminded at every data collection point of the importance of their continued participation in the study. It is not clear, however, whether the participation rate is higher because of the absence of a reminder of the right to withdraw, or because of the inclusion of a reminder about the importance of participation.

Trice and Ogden's findings hold for sensitive as well as nonsensitive subject matter. On the other hand, and in apparent contradiction to the results just noted, Trice and Bailey (1986) found that students told they could withdraw without prejudice a few days before a study session were twice as likely to withdraw as those told immediately before the study session. The contradiction is more apparent than real, because the "a few days before" condition of 1986 is in fact similar to the "point of data collection" of 1987. Once subjects have made a commitment to participate by appearing at the laboratory, they are unlikely to withdraw.

Research has also been done on the question of voluntary participation and response quality. Gardner (1978) found that students told they could discontinue a work session under unpleasant noise conditions performed better than those who were not given the option of withdrawing. His experiments were conducted to clarify a failure to replicate earlier findings concerning the negative aftereffects of noise on performance. He was able to show that giving subjects "control" over the stimulus by giving them an explicit right to withdraw eliminated the negative effect of the noxious stimulus on performance.

The finding that a change in the introduction to the experiment can produce substantive changes in the experimental results obviously creates problems for research. Gardner's finding has been replicated by Trice (1987a). However, Trice (1986) found that informing students that their performance on a test would not affect the amount of credit they got for volunteering reduced the average number of problems they solved although it did not affect their anxiety level. Thus, the precise nature of the effect of the introduction on performance remains unclear.

Finally, it is worth noting that when institutions attempt to protect themselves against liability, as by including waivers of remedies for physical or emotional harm, or by a limited waiver of confidentiality, rates of volunteering for experiments drop (Trice and Ogden 1986).

These results, while tantalizing, clearly need to be replicated in a survey context in order to clarify their significance for research outside the laboratory. One such survey experiment was reported by Tulp, Hoy, Kusch, and Cole (1991). Depending on whether or not they had participated in a previous cycle, establishments told their response to a census survey was mandatory had response rates from 24.8 to 11.3 percentage points higher than those told their response was voluntary. (Establishments previously included tended to respond at a higher rate, minimizing differences between experimental conditions.) It is not clear whether a similar effect of emphasizing mandatory response would be found in surveys of individuals, however.

6. Conclusions and Implications

In concluding, we should note that much of the pertinent social science research cited here is more than ten years old, having been stimulated by the regulations concerning human subjects formulated in the mid 1970s. This is especially true for the large-scale survey field experiments cited. Yet many of the social changes that have occurred in the intervening years, such as

the enormous growth in computing power and the corresponding growth and proliferation of data bases containing information about individuals, would seem to make issues of privacy, confidentiality, and risk more salient to respondents than ever before. During this same time, response rates have continued to decline, or continue to be maintained only by increasing effort on the part of survey organizations (Groves 1989). A program of research, using small-scale experiments but an actual survey context, would appear to be a useful undertaking, yielding needed information for researchers and policymakers alike.

Survey researchers use introductory statements or letters to communicate informational elements basic to informed consent. It is helpful to conceptualize such elements as consisting of the benefits of survey participation, on the one hand, and risks and costs attendant on participation, on the other. Since most surveys are voluntary, and respondents are entitled to be informed of this fact, research is needed on what they perceive the benefits of participating in a particular survey to be, and how such benefits could best be communicated to them. Focus groups of potential respondents, and other small-scale exploratory research, might well be used in such a process.

So far as the risks and costs of participation are concerned, for most social surveys these pertain to the risk that the confidentiality of respondents will be breached. This review has provided support for the assumption that concern about the confidentiality accorded one's data contributes significantly to survey nonresponse and response quality. However, the crucial variable may very well be trust in the integrity of the data collection agency, not the nature of the assurance given to respondents. Results from past research have been modest and not entirely consistent, perhaps because such research has focused on variations in confidentiality assurances rather than on the respondent's trust in the confidentiality of the data. Although the two things are undoubtedly related, there is not necessarily a one-to-one correspondence between them, and future research on the role of confidentiality ought to take both variables into account.

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