Journal of Official Statistics, Vol. 19, No. 3, 2003, pp. 273–285

Exploring the Meaning of Consent: Participation in Research and Beliefs about Risks and Benefits

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This study investigates what risks and benefits respondents perceive in two specific surveys, the National Survey of Family Growth and the Health and Retirement Study, and how these perceptions affect their willingness to participate in research and to sign a consent form. The study was carried out by means of an experiment embedded in the Survey of Consumer Attitudes (SCA), an RDD survey carried out monthly at the University of Michigan. The research shows that respondents are rational: their perceptions of risk, benefit, and the risk-benefit ratio significantly predict their expressed willingness to participate in the survey described to them. The research reported here also indicates that willingness to sign a consent form is an imperfect indicator of willingness to participate in a survey. At least 13 percent of those in the current study who expressed willingness to participate said they would be unwilling to sign a form indicating their consent.

Key words: Informed consent; survey participation; risk; benefit.

1. Introduction

The requirement for obtaining informed consent from the subjects of research can be traced to gross violations of subjects' rights by biomedical researchers, especially by German scientists during the Nazi era but also by American scientists in the Tuskegee syphilis study (Tuskegee Syphilis Study Ad Hoc Advisory Panel 1973). Public concern about potential harm to subjects, including some in social science research (e.g., the Milgram studies 1974, and research by Laud Humphreys 1970), led to codification and adoption of the Federal Regulations for the Protection of Human Subjects of Research in 1974 – the well-known 45CFR46. These Regulations have since been revised, most recently in 1991. In recent years, the highly publicized deaths of several research subjects in clinical trials at well-known universities have placed the process of human subjects protection under renewed and intense scrutiny by various government agencies and congressional panels – e.g., the National Bioethics Advisory Commission; the Institute of Medicine's Committee on Assessing the System for Protecting Human Research Subjects; the National Research Council's Panel on Institutional Review Boards, Surveys, and

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Acknowledgment: I would like to acknowledge the financial support of this research through the Michigan Center for the Demography of Aging and the Michigan Center for Excellence in Health Statistics. The research assistance of Amy Corning, Emily McFarlane, and John Van Hoewyk is also gratefully acknowledged. Fred Conrad, David Featherman, and David Weir provided helpful comments on earlier drafts.

Social Research; and the National Science Foundation's Social, Behavioral, and Economic Sciences Subcommittee for Human Subjects.

The process by which consent must be obtained from human subjects is specified in the Regulations but is actually determined by the protocols established by Institutional Review Boards (IRB's) at the institutions that fund or carry out research. These IRB's, which are mandated by the Regulations as a condition for the institution's receiving federal funding for research, are often concerned as much with protecting the institution from liability as they are with protecting the subjects of research from harm, since an adverse event may lead not only to lawsuits from participants, but also to the loss of federal funding.

Breaches of confidentiality, and their possible consequences, pose perhaps the major risk of harm to social science research subjects. In recognition of this, the Code of Federal Regulations exempts research involving survey procedures, except when the information obtained is recorded in such a manner that human subjects can be identified, either directly or through identifiers linked to the participants, and the possible disclosure of their answers could ''reasonably'' jeopardize their ''financial standing, employability, or reputation'' or put them at risk of criminal or civil liability (45 Code of Federal Regulations 46.101, b(2)I). Many surveys, however, request information for which written consent is required, either because they plan to link responses with administrative records, or because the Institutional Review Board charged with interpreting the federal Regulations deems the survey's content sufficiently sensitive to warrant the more formal documentation of consent. Such requirements appear to be increasingly common. The requirements imposed by IRB's are often seen by social scientists as unnecessarily hampering their ability to carry out what they regard as minimal risk research, for which the Regulations permit modification of the informed consent procedures required in high-risk research.[2] There is concern, in addition, that the requirements imposed on social science research by IRB's will reduce willingness to participate, which in turn, in many areas of social science, may reduce the generalizability of the findings.

In fact, very little is known about the effect of informed consent requirements on participation in social science research, and even less about the perceptions, understandings, or desires of research participants; and such research is for the most part quite old (see, e.g., Singer 1978a; Singer 1978b; Singer 1984; Singer and Frankel 1982; for a review, see Singer 1993). Because of this, in September of 2000 we undertook a pilot study of these processes with funding from the Michigan Center for the Demography of Aging, supplemented by an additional grant from the Michigan Center for Excellence in Health Statistics. The aim of the study was to survey a representative sample of potential respondents to social surveys to find out what they understand by risks and harms, and how these perceptions influence their willingness to participate in the research. Specifically, the project had two aims:

[2] 45CFR46.116 (c) and (d) specify the conditions under which an IRB may alter or omit some or all of the elements of informed consent or waive the requirement for obtaining consent altogether. Aside from state or local sponsorship of research into public benefit or service programs, (1) research eligible for such exemptions must involve no more than minimal risk; (2) the waiver or alteration must not adversely affect the rights or welfare of the subjects; (3) the research is such as could not practicably be carried out without the waiver or alteration; and (4) whenever appropriate, participants will be provided with additional information afterwards. The conditions under which written documentation of consent may be waived are specified in 45CFR46 117(c).

1. To explore people's understanding of informed consent, including their perceptions of the kind and degree of the risk involved, as well as their ideas about the usefulness of the research;
2. To explore the relationship between attitudes and behavior: Are people who say they are more concerned about confidentiality less likely to provide data, especially sensitive data?

We hoped that such information would accomplish two things. First, helping researchers understand what is important to potential respondents might enable them to better address their concerns and increase their willingness to participate. And second, informing IRB's about respondent perceptions of risks, harms, and benefits, as well as their reactions to certain elements of informed consent procedures, might provide useful input to their deliberations.

2. Methods

The vehicle for the study was the Survey of Consumer Attitudes (SCA), a random digit dialed (RDD) telephone survey of the national adult population fielded at the University of Michigan every month, primarily to measure consumer confidence. The monthly sample consists of interviews with 300 newly selected respondents, plus 200 reinterviewed after an interval of six months. The response rate to the survey in 2001 was around 61 percent, which is respectable for an RDD survey in the current era. We used February 2001 for pretesting the questions and format. The data analyzed here come from the RDD portion of the April 2001 survey; the *N* on which the analyses are based is 275. All analyses have been adjusted for the clustering of responses using the jackknife regression procedure in *IVE*Ware (www.isr.umich.edu/src/smp/ive/).

The questions added to the SCA were designed to permit answers to more general research questions such as the following: What do people think they are consenting to, when they agree to participate in (social) research? Who do they think has access to their answers? What does ''confidentiality'' mean to them – what does an assurance of confidentiality protect? How concerned are they about a breach of confidentiality – how much do they care about it, or mind if it occurs? What kinds of consequences do they imagine would follow on a breach of confidentiality? Does the utility of the information compensate respondents for possible risks to which they may be exposed? Do perceived risks and benefits predict willingness to participate in research? How does a request for a signed consent form affect willingness to participate?

To answer these questions, respondents were presented with hypothetical introductions to two ongoing studies at the University of Michigan – The National Survey of Family Growth (NSFG) and the Health and Retirement Study (HRS). (Note that the data come from *respondents* to the SCA. It cannot be assumed that they would generalize to nonrespondents as well; in fact, it is likely that willingness to participate would be lower, and perceptions of risk higher, among this group.)

The introductions were very similar to the actual descriptions of these studies provided to respondents, but the statements about risks and benefits were made as similar as possible. In addition, the request for a signature on a consent form was systematically varied, with half the introductions mentioning such a request and the other half not mentioning it.

Each respondent was asked about both studies; if they were asked for a signed consent form for one study, they were also asked for such a form for the other. Half the respondents were asked first about the HRS and then about the NSFG, and the other half were asked about them in the reverse order. This section appeared at the end of the regular SCA interview, just before the demographic questions, and was introduced by interviewers as follows:[3]

> ''Now for something a little different. We are trying to learn how to better describe surveys to respondents . . . Imagine that the interviewer is talking with the respondent in person, in the respondent's home, and describes the first study as follows . . .''

The complete introductions are given in the Appendix.

The following dependent variables were measured, in the order in which they appear below:

Willingness to participate. This variable was measured by a single question, asked immediately after the introduction had been read:

> ''Please tell me how likely it is that you would take part in the survey I just described to you. Use a scale from zero to ten, where zero means you would definitely not take part and ten means you would definitely take part.''

This question was followed by an open-ended probe, asking for reasons why the respondent would or would not participate.

Willingness to sign consent form. Respondents given a vignette that said they would be asked to sign a consent form were asked whether or not they would be willing to sign the form, just after they had indicated how likely they would be to participate in the study. Then, they were asked why they would (or would not) be willing to sign.

Perception of risks. The next four items assessed the perception of risks. Parallel items asked about four different groups: family members; business firms that might want to sell something; employers; and law enforcement agencies such as the IRS, the Welfare Department, or the police:

> ''How likely do you think it is that each of the following people or groups would find out your answers to the survey questions, together with your name and address? Please answer using a scale from zero to ten, where zero means they will never be able to find out your answers, and ten means they are certain to find out your answers.''

Answers to the four questions were summed and averaged for a general measure of perceived risk.

Sensitivity to risk. By ''sensitivity,'' we meant how much people would be bothered if

[3] The main SCA interview is introduced as follows: ''I am calling from the University of Michigan in Ann Arbor. Here at the University we are currently working on a nationwide research project. We are interested in what people think and feel about how the economy is doing. We would like to interview you for our study and I was hoping that now would be a good time to speak to you.

Before we begin, I would like to assure you that the interview is confidential and completely voluntary. If we should come to any question that you don't want to answer, just let me know and we'll go on to the next question.''

any of the four groups mentioned above gained access to their survey responses. The question was as follows:

> ''Now I'd like to know how much you would mind if each of the groups I've just mentioned found out your answers to the survey, along with your name and address. Please use the same scale from zero to ten, where zero means you would not mind at all, and ten means you would mind a great deal.''

Answers were again summed and averaged. In some cases, as noted below, we looked separately at sensitivity to individual persons or groups.

Perceived threat. Perceived threat was a variable created by multiplying the perceived risk score by the sensitivity score. Perceived threat is also examined separately by group in some of the analyses.

Perception of benefits to self and society. Benefits to society were measured by the following question, again asked about four different groups: the government agency sponsoring the survey; businesses planning new products; other researchers; and law enforcement agencies:

> ''Think again about the survey I just described. On a scale from zero to ten, where zero means not at all useful and ten means very useful, please tell me how useful each of the following groups would find the information from the survey.''

Answers to the four questions were summed and averaged.

Benefits to self were assessed by the following question, asked immediately after the questions about societal benefits:

> ''Would you, yourself, get anything good out of the survey?'' (*Yes*, *No*)

Perception of risks vs benefits. The risk-benefit ratio was measured by a question that asked:

> ''Taking it all together, do you think the risks of this research outweigh the benefits, or do you think the benefits outweigh the risks?''

3. Results

3.1. Perceived risks and benefits

The analyses that follow examine the effects of study (NSFG or HRS) and the request for a signed consent form as well as three demographic variables – age, education, and gender – on perceptions of risks and benefits. The order in which the descriptions of studies were administered to respondents, as well as the interaction between study and order, are controlled in the analyses, which use ordinary least squares (OLS) or logistic regression, as appropriate.

3.1.1. Perceived risks

To begin with, it should be noted that although both introductions assure respondents that their answers will remain confidential, most people believe that there is some chance that others will gain access to them. On a scale where 0 means there is no chance that a

particular group will be able to see their answers and 10 means that others are certain to see their answers, the average score for family members is 2.6; for businesses trying to market something, 4.2; for employers, 2.9; and for law enforcement agencies, 4.9. Differences among these scores are statistically significant ($P < 0.05$). The difference between family members and employers is not significant at the 0.05 level; all other differences between pairs of potential recipients of the information are.

The average risk score for all four groups combined is 3.9 for the HRS and 3.4 for the NSFG. This difference between studies is significant, even with other variables controlled ($P < 0.05$), perhaps because money matters are seen as more sensitive by respondents than health and family planning. We return to this issue in Section 4. The order in which the introductions were read to respondents is not significant, and no other variable had a significant effect on perceptions of risk.

3.1.2. Sensitivity to risk

Sensitivity to risk did not vary by study; it averaged 5.8 for the NSFG and 5.9 for the HRS on an 11-point scale. There were, however, significant variations in sensitivity depending on who might gain access to the information ($P < 0.05$). People were least concerned about family members learning about their survey responses (3.6) and most concerned about businesses that might try to sell them something (7.7). Concern about employers (6.3) and concern about law enforcement agencies (6.1) were virtually equal, and intermediate between concerns about the other groups.

Only two variables significantly predict sensitivity. The better educated were significantly more concerned about others gaining access to their information than those with less education; and those asked to sign a consent form were significantly less concerned.

3.1.3. Perceived threat

As noted above, we also computed a variable that we called ''perceived threat'' by multiplying the average perceived risk score by the average sensitivity score; threat scores can range from zero to one hundred. Perceived threat varies significantly by study, with the HRS perceived as significantly more threatening (26.2) than the NSFG (20.6) ($P < 0.01$).

Like sensitivity, threat varies according to the group that might gain access to the respondent's answers. It is lowest for family members (9.4) and highest for businesses and law enforcement agencies (33.5 and 32.3, respectively), which do not differ significantly from each other. The threat score for employers is 18.6.

3.1.4. Perceived benefits to society and self

Most people perceived that both the NSFG and the HRS, as described, would have benefits for others; there were no significant differences by study. The average perceived societal benefit for HRS is 6.7 (on a scale from zero to ten), and 6.6 for NSFG. Order does marginally ($P < 0.10$) affect the rating: If NSFG is asked about first, societal benefits are rated as significantly higher than if HRS is asked about first. The only other significant effect is that of age: Older respondents were less likely to see benefits for others.

A minority of respondents believed that they personally would not derive any benefits from either study – for the HRS, the percentage is 44.6, and for the NSFG, 48.9 – and these percentages do not differ significantly. Again, the only variable marginally significant in

predicting perceived personal benefits is education, with better-educated people more likely to perceive personal benefits than those with less education ($P < 0.10$).

3.1.5. Perceived ratio of risk to benefit

Finally, we looked at responses to the question that explicitly asked respondents to weigh risks against benefits. Respondents were significantly more likely to say that risks outweighed benefits for the HRS than for the NSFG, which parallels their perceptions of the relative risks of the two studies. Age was the only other significant predictor of responses to this question, with older people significantly more likely to see risks as outweighing benefits than younger ones. Education was marginally significant ($P < 0.10$), with the better educated more likely to perceive risks as outweighing benefits than those with less education.

As measured by the risk-benefit ratio, 73 percent of the sample perceived benefits as outweighing risks for these studies, compared with 81 percent when this ratio is calculated from independent measures of risk and benefit. Of those who perceive benefits as outweighing risks on the single measure, 87 percent are scored the same way when two separate measures are used; for 9 percent, risks outweigh benefits; and for 4 percent, risks equal benefits. But for those who perceive risks as outweighing benefits on the single measure, only 24 percent are also scored that way when the two separate measures are used. For 65 percent, benefits outweigh risks under those circumstances, and for the remainder, benefits equal risks. Thus, there are subtle differences in the meaning of these two measures of the risk-benefit ratio, which we do not explore further in this article.

3.2. Willingness to participate as a function of perceived risks and benefits and request for signature to document consent

The first question addressed to respondents after being read the description of each study was how likely they would be to take part in the survey just described. Interviewers first read the description of one study and asked all the questions about it; only then did they read the other introduction and ask the questions again.

The average score for the HRS was 4.2 and for the NSFG, 5.9, a difference that was statistically significant and indicated that respondents were more inclined to respond to the NSFG. If categories on the scale are collapsed so that responses of 0–4 indicate unwillingness, 5 undecided, and 6–10 willingness to participate, then 55.3 percent of respondents indicated willingness to participate in the NSFG compared with 38.2 percent for HRS. Both of these are much lower than the actual response rates for either survey.

The question of interest to us, however, is the extent to which perceptions of risks, benefits, and the risk-benefit ratio influenced expressed willingness to participate in the survey.

The results are shown in Table 1. Perceived risk had a significant negative effect on willingness to participate, and perceived benefits a significant positive effect; the risk-benefit ratio, measured independently, also had a significant negative effect. Even after we controlled for perceptions of risks and benefits as well as age, respondents were still significantly more likely to say they would participate in the NSFG than the HRS, which we interpret as reflecting their greater interest in the topic of this study.

The request to sign a consent form had no significant effect on expressed willingness to participate.

We repeated the model in Table 1, substituting threat (as measured by perceived risk multiplied by sensitivity to risk) for risk but retaining the other variables in the equation. The results are identical to those reported above, with threat highly significant in predicting willingness to participate.

Clearly, potential respondents are sensitive to the variables normally included in informed consent statements – i.e., the perceived risks and benefits associated with participation in research. It is also clear that the perceived risks differ from those actually described in the introduction. There, the researchers went to great pains to assure respondents of the confidentiality of their replies – an assurance that failed to convince many of them. At the same time, there is no indication here that the request for a signature to document consent had a significant negative effect on expressed willingness to participate.

3.3. Agreement to participate and agreement to sign consent form

This does not mean, however, that all those willing to participate in a study are also willing to sign a consent form. Indeed, some 13 percent of those respondents who expressed willingness to participate in the study said that they would not be willing to sign a consent form if asked. This finding parallels results reported by Singer (1978a), where some 7 percent of respondents who were willing to complete an actual interview refused to sign the consent form. In a more recent example of this phenomenon, 29 percent of Health Interview Survey interviewers monitored for four quarters – from 1999, quarter 3, through 2000, quarter 2 – signed a ''consent'' form for the respondent, indicating that the latter had agreed to do the interview but refused to sign a regular consent form (Robert Groves, personal communication).

Some reasons given by those who said they would refuse to sign a consent form include unelaborated repetitions of the refusal (for example, ''I don't like to sign;'' ''I wouldn't do it if I had to sign;'' about 22 percent of reasons were coded into this category); statements that they had not been given enough information (about the study, questions, and similar survey features) to sign or that they wanted to check the legitimacy of the study before signing (about 6 percent of reasons were coded into these two categories combined); the perception that signing something increases the risk associated with participation (6 percent); and the belief that there was no value to signing the form (6 percent). The remaining reasons (constituting a majority) were offered less frequently. Thus, not liking to sign things, and the belief that doing so somehow puts one at risk, are deterrents for a substantial number of those declining to sign the consent form.

A look at the predictors of willingness to sign *among those willing to participate* confirms the role of perceived threat in this decision. In an OLS equation that predicts willingness to sign from threat, benefit, the risk-benefit ratio, age, education, sex, study, and order, only education (significantly) and threat (marginally) predict willingness to sign. Those who perceive the studies as more threatening, and the better educated, are less willing to sign the consent form even though they say they would be willing to participate. The results are identical if a measure of risk is substituted for threat. Among those

who are unsure about whether they will participate or not, only the risk-benefit ratio is significant, with those more likely to see risks as outweighing benefits less likely to say they would be willing to sign a consent form. The results are identical if a measure of perceived risk is substituted for perceived threat, except that risk is only marginally significant ($P = 0.11$).

3.4. Perceptions of risk and item nonresponse

The fact that this experiment involving perceptions of risk and benefit as factors in survey participation was embedded in an ongoing survey devoted largely to questions about consumer confidence and buying intentions permitted us to see whether those respondents who perceived more risk of confidentiality breaches and were more sensitive to those risks (i.e., scored higher on our threat and sensitivity variables) were also those with the highest nonresponse rates to 17 key items on the survey which are asked every month. The Index of Item Nonresponse is the sum of the number of times the respondent does not answer, or answers Don't Know, to these 17 items, divided by the total number of items he or she was asked. The items making up the Index of Item Nonresponse measure, among other things, respondents' assessments of their current and future family finances and income, the nation's business and employment conditions, and the government's role in affecting the country's economy. The index has been logarithmically transformed to correct for skew.

We looked at how well measures of risk, the risk/benefit ratio, sensitivity, and threat predicted scores on the Index of Item Nonresponse. When these measures are included as predictor variables along with controls for age, sex, and education, only one is marginally significant ($P < 0.10$): sensitivity is a significant *negative* predictor of item nonresponse, which is of course the opposite of what we predicted.

Because sensitivity and threat scores varied depending on the individual or group who might gain access to the answers, we also looked at the scores separately for each of the four groups. Only one of 24 comparisons[4] is statistically significant, again in the wrong direction: Respondents who have lower scores on the Index of Item Nonresponse earlier in the questionnaire say they would mind more if their responses fell into the hands of businesses wanting to sell them something.

Perhaps, however, this way of putting things helps to clarify the counter-intuitive relationship. Respondents who have just answered most questions about their economic satisfactions and expectations may, later in the questionnaire, express greater concern about these answers falling into the hands of businesses than respondents who refused to answer these questions earlier, or responded with Don't Know.

There is of course no way of proving that this interpretation is correct, but it is worth keeping in mind that the dependent variable (i.e., the Index of Item Nonresponse) is based on questions that *precede* the measurement of the independent variables, and that the sequence of the questions may indeed affect the relationship between them. Had we made confidentiality issues salient to respondents *before* asking them about their economic

[4] We predicted the score on the Index of Item Nonresponse separately from three equations: one containing four measures of risk, a second containing four measures of sensitivity, and the third containing four measures of threat; each model was run twice, once for responses to the NSFG and once for responses to the HRS.

Table 1. The effect of perceived risk, perceived benefit, and perceived risk-benefit ratio[5] *on willingness to participate*

Variable	Parameter estimate	(Standard error)	*p*
Risk	−0.190	(0.053)	< .001
Benefit	0.338	(0.068)	< .001
Risk-benefit ratio	−3.550	(0.328)	< .001
Age	−0.006	(0.010)	n.s.
Education	0.482	(0.340)	n.s.
Sex	−0.113	(0.299)	n.s.
Study	1.282	(0.235)	< .001
Order	0.188	(0.302)	n.s.
Signature	−0.230	(0.311)	n.s.
Intercept	1.617	(1.428)	n.s.

satisfactions and expectations, the relationship between confidentiality concerns and item nonresponse might have been the opposite of what we found here.

4. Discussion and Conclusions

The analyses above suggest that the HRS is perceived as significantly more risky than the NSFG. These two studies were included because they deal with two topics that are often perceived as sensitive by respondents: personal finances (for the HRS) and sexual behavior (for the NSFG). Of course, the descriptions of the two studies emphasized other subject matters as well – changes in health and health care needs in the case of the HRS, and schooling, work, and medical care in the case of the NSFG.

The findings suggest that questions about finances are seen as more sensitive than those about sexual behaviors, pregnancy, and childbearing, but because the descriptions differ subtly in other ways, we cannot be sure of this interpretation. For example, the introduction to the HRS states, ''Because we would like to obtain a history of your past earnings and most people cannot recall this information very well, we are asking your permission to obtain this information from government records.'' The description of the NSFG states only, ''Information from the study may be linked with data from the U.S. Census Bureau or other government agencies for statistical studies of health, childbearing, or family issues.'' Perhaps the probability of linkage is perceived as lower in the case of the NSFG; or perhaps the U.S. Census Bureau is seen as less threatening than ''government records.'' It is also true that the context for the informed consent section is the SCA, whose questions are much more similar to those of the HRS than those of the NSFG. These interpretations are clearly in need of further testing.

The research reported here (as well as earlier research – cf. Singer 1978a) indicates that respondents do not hear, understand, or remember everything we tell them in the introduction to a survey, suggesting that neither consent nor refusal may be very well informed. However, *given their perceptions*, respondents act rationally. Their perceptions of risk, benefit, and the risk-benefit ratio significantly predict their expressed willingness to participate in the survey described to them. And their concerns about confidentiality

[5] Measured independently of perceived risk and perceived benefit.

predict not only expressed willingness to participate in a survey, but actual participation as well (Singer, Mathiowetz, and Couper 1993; Singer, Van Hoewyk, and Neugebauer 2002), accounting for 1.2 to 1.3 percent of the explained variance in census returns in both 1990 and 2000.

Thus, the key to improving survey participation would seem to lie in more persuasive descriptions of the absence of risk (where there is none) and of the presence of benefits, both for society and for respondents themselves. Of interest in this connection is the fact that better-educated respondents were both more likely to indicate their willingness to participate (perhaps because of a greater sense of civic obligation) and more concerned about others gaining access to information about them. They were also less willing to sign a consent form even when they were willing to participate. Older respondents were significantly more likely to perceive a higher ratio of risk to benefit in these surveys, and less likely to perceive benefits to others.

The research reported here also replicates earlier research (Singer 1978a) as well as current experience with respect to the relationship between willingness to participate in a survey and willingness to sign a consent form. Willingness to sign is an imperfect indicator of willingness to participate; at least 13 percent of those in the current study who expressed willingness to participate in the study said they would be unwilling to sign a form indicating their consent. This finding is crucial to the argument that IRB's should permit researchers to modify the way consent is documented, especially in a study where the risk is minimal. The request for a signature does not appear to protect respondents' rights; on the contrary, it may subvert their expressed desire for participation. And it reduces the generalizability of survey findings, which depend on accurate measurement of all the designated members of the sample.

Appendix

Introductions to Studies[6]

Introduction to NSFG

We are trying to learn how to better describe surveys to respondents . . . Imagine that the interviewer is talking with the respondent in person, in the respondent's home, and describes the first study as follows:

You have been chosen to participate in a special study called the National Survey of Family Growth being done by the University of Michigan for the National Center for Health Statistics. As a token of our appreciation, you will receive $25 whether you decide to participate in the study or not. The goal of the study is to gather information from a national sample of households about schooling, work, marriage and divorce, family life, sexual experiences, pregnancy, and medical care. Information from the study may be linked with data from the U.S. Census Bureau or other government agencies for future

[6] These introductions contain the statement about signing the consent form. Half the sample received a version of the introduction without this sentence. If a consent form was requested for one study, it was requested for the other as well.

statistical studies of health, childbearing, or family issues. Your participation will help government agencies and health policy makers to plan better health services and educational programs for American men, women, and families.

Your answers to our questions are used for research purposes only. Any information you give us will be kept confidential. The researchers who use our data see only statistics. We never give out names and addresses to anyone. You will not be individually identifiable in any reports.

This interview is completely voluntary, and nothing will happen if you choose not to participate. If there are any questions you do not wish to answer for any reason, you can ask the interviewer to skip them. To indicate that I have read you the information about the study and that you are willing to take part in it, I will ask you to sign a consent form.

Remember, we are NOT asking you to take part in this study. We just want to get your reactions to the description I've just read to you.

Introduction to HRS

We are trying to learn how to better describe surveys to respondents . . . Imagine that the interviewer is talking with the respondent in person, in the respondent's home, and describes the first study as follows:

You have been chosen to participate in a study of health and retirement being done by the University of Michigan for the National Institute on Aging. As a token of our appreciation, you will receive $25 whether you decide to participate in the study or not. The study will provide a better understanding of the factors that affect the decision to retire, and the consequences of retirement for health and economic well-being. We are especially interested in knowing how recent changes in the Social Security system and in private pensions have affected retirement plans, so that sensible public policies can be developed for the future. We would also like to know more about how people's health changes as they approach retirement age, and how their health care needs will be met after they retire. Because we would like to obtain a history of your past earnings and most people cannot recall this information very well, we are asking your permission to obtain this information from government records.

Your answers to our questions are used for research purposes only. Any information you give us will be kept confidential. The researchers who use our data see only statistics. We never give out names and addresses to anyone. You will not be individually identifiable in any reports.

This interview is completely voluntary, and nothing will happen if you choose not to participate. If there are any questions you do not wish to answer for any reason, you can ask the interviewer to skip them. To indicate that I have read you the information about the study and that you are willing to take part in it, I will ask you to sign a consent form.

Remember, we are NOT asking you to take part in this study. We just want to get your reactions to the description I've just read to you.

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Received June 2002
Revised February 2003