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## Introduction

Surveys based on scientific sampling methods began in the mid-1930s with market research studies and public opinion polls. The public's response to such efforts was one of enthusiastic participation, perhaps reaching a peak during World War II for government-sponsored surveys as part of the patriotic zeal attending the war [3: 10-11]. However, for the years since World War II there has been a serious concern that nonresponse rates have increased for surveys conducted under various auspices-government, academia, market research firms, and poll-taking organizations[4]. 1/

Several reasons for the trend in survey nonresponse have been posited. For example, Goldfield, et al. [4:219] attribute it to such factors as, fear of crime, over-surveying, disillusionment about the validity and usefulness of survey results, salesmen and con artists misrepresenting themselves as survey interviewers, and issues of privacy and confidentiality. Some concern has been expressed that non-response, due mainly to refusal [3:11], jeopardizes the future of the entire survey enterprise [4:219]. Much of this concern centers on the public's fear of violation of privacy and compromise of confidentiality. This culminated in the formation of the Panel on Privacy and Confidentiality in Survey Response, which was convened under the sponsorship of the Committee on National Statistics of the National Academy of Sciences. One emphasis was on the general paucity of empirical data on reasons for nonresponse and quantitative studies on strategies for improving and maintaining "acceptable" response rates [4].

Of late, several empirical studies have been undertaken to explore the issues surrounding survey refusal. In addition to two studies resulting from the Panel's recommendations (see [4]), both the National Center for Health Statistics [8] and the Center for Human Factors Research of the Bureau of the Census (CHFR) [8] have conducted research on refusals. The former concentrated on an assessment of privacy concerns and hostility toward the government as reasons for refusing to participate in the National Medical Care Expenditure Survey of 1977-78. Their data indicate that concerns with privacy and hostility towards the government were relatively minor in terms of explaining overall refusal. Only about 6% and 9% of refusers gave these two reasons respectively, as motives for refusal. 2/ Privacy and hostility ranked well below such other reasons as, "lack of interest in participating" and "no time to spend answering the questions" [8:511-512]. DeMaio's[2] research on refusal in the Current Population Survey expands on earlier work done by the Census Bureau with CPS data in that it investigates characteristics of refusers in households in which no interviews have been conducted. Previous work was

limited to respondents who refused after having cooperated in earlier waves [9]. One major concern addressed in this recent research is the possible increase in refusal rates for governmentsponsored surveys due to the Privacy Act, which requires explicit notification of the voluntary nature of the survey to potential respondents. The data indicate, however, that knowledge of the voluntary nature of the survey was cited much less frequently than other factors as the reason for refusal, suggesting that the Privacy Act may not have the detrimental effect on response rates that had been feared [2].

Research on CPS refusals is of particular importance since the CPS is a major longitudinal survey for which problems of non-response are compounded by the attrition of respondents due to refusal over the life of the panel. This paper explores several dimensions of refusal for another Census-conducted longitudinal survey, the 1979 Panel of the Income Survey Development Program (ISDP). With information obtained from interviewers on non-response due to refusal, we can bring new data to bear on several issues concerning refusal and non-response.

- Among the questions to be explored are: 1. What are interviewers' perceptions of the reasons for refusal to participate in the survey, i.e. which reasons are most commonly cited; which reasons are least commonly cited?
- 2. To what extent are demographic and perceived socioeconomic characteristics of refusers related to reasons for refusal?
- 3. How do reasons for refusal in the initial wave of the panel differ from reasons given in subsequent waves? How do refusers who have never cooperated with the survey differ from those refusers who have cooperated in at least one wave of the panel?
- 4. At what point during the interview are refusals most likely to occur?

Although answers to some of these questions may have implications for the analysis of statistical bias in survey responses, of central interest to us are the possible implications of our findings for operational aspects of survey research. Specifically, do our findings suggest any strategies for maximizing respondent cooperation?

### The Data

Data for this study come from forms completed by interviewers for refusal households in the ISDP 1979 Panel. Survey content emphasized details on sources and amounts of monthly income, including income-in-kind; also collected was considerable demographic, economic and attitudinal information. ISDP was sponsored by the Department of Health and Human Services and fielded by the Bureau of the Census. Multi-frame sampling tech-

niques were used to select the sample households and respondents. In the first wave, about 83% of the 9,900 occupied sample households had been selected using Census sampling frames, nearly 10% were from administrative lists of Supplemental Security Income (SSI) recipients, and roughly 8% were from administrative lists of eligible applicants for the '78-'79 Basic Educational Opportunity Grant (BEOG) program. Of the households in the Census sample, nearly four-fifths were drawn from respondent addresses in the 1976 Survey of Income and Education (SIE). 3/ The remainder of the Census sample households were selected from 1970 decennial, new construction, and other lists. Interviews with all household members aged 16 and over began in February, March and April 1979; they were repeated at three-month intervals through June 1980. 4/

For households in which all respondents refused to be interviewed, interviewers were required to complete a special refusal form. The major purpose of the form was to facilitate communication between interviewers and field supervisors. The form collected information on the reason(s) given for refusal, the time of refusal (e.g., before the introduction, after some questions were asked), some demographic characteristics of the refuser, and some housing characteristics. After a revision of the form in September 1979, information was also collected on the interview status of the household in each of the preceding waves.

The preliminary data analyzed here are from refusal forms submitted by March 31, 1980 to the Field Division of the Census Bureau in Washington, D.C. Note that forms cover <u>households</u> in which no interview was obtained for a given wave because of refusal; forms were not completed separately for each person who refused.

Because of the longitudinal nature of the survey design, more than one refusal form could be completed for each household. For example, a household refusing in Wave 1 would usually be revisited in Wave 2, when a second refusal might occur. Both refusals should have been reported using the forms. However, this analysis uses data only from the first refusal form that was completed for each household—yielding 677 refusal cases. Data have not been weighted or linked to the main survey questionnaires.

Because of the form revision in September, some discussion of the 'reason for refusal' variable is important. On both the old and the new forms (i.e., the pre-September and subsequent forms), both prelisted reason categories and an open 'Comments' section were available for interviewers to mark. However, there were six substantive reason categories on the old form but only five on the new. In addition, interviewer instructions on the old form were to "mark all [reason categories] that apply" while the new form asked interviewers to "mark [the] main reason only". 5/

To resolve these discrepancies and to maximize the usefulness of interviewer comments, the following procedures were followed in constructing the data set:

- (1) New 'reason for refusal' categories were constructed based on interviewer comments; and,
- (2) When the "other" category was marked by interviewers with accompanying comments that were codable into either the precoded or the newly created reason categories, recoding of

the "other" category was done by the authors. (See notes to Table 1.)

## Findings

Table 1 (left panel) presents the relative frequencies of refusal reasons. Since it was possible for an interviewer to cite more than one reason for a given refusal, the percentage distribution of reasons is computed on two bases. The first basis is the total number of reasons cited for all refuser households; the second is the number of refuser households. For example, 6.9% of total responses were categorized as "dislike of government" whereas 10.2% of the households gave such responses.

The most noteworthy feature of Table 1 is the degree to which the distributions are skewed-even among the precoded categories where we would expect most responses to fall. If we leave the "other" category aside, we observe that "don't want to spend time" and "invasion of privacy," the most common reasons for refusal, are in many instances four or five times as frequent as alternative categories.

native categories. The demands of the survey on respondents' time is the most frequently cited reason for refusal. Given the relative complexity of the ISDP questionnaire and its design which makes all household members 16 or older eligible respondents, it is not unexpected that some respondents will feel that the survey demands too much of their time and attention. 6/

The prominence of "invasion of privacy" as a reason for refusal is somewhat at odds with earlier studies which show that privacy concern is neither significant in an absolute sense nor highly ranked relative to other reasons [8]. This disparity between our data and earlier data is not necessarily an indication of a rising concern with privacy, although we have no proof to the contrary. Rather, the disparity may be the result of the differences between the content of the ISDP and surveys upon which the other studies are based. Income and program participation have been viewed by many survey researchers as delicate and even threatening subject areas. The content of ISDP may be more sensitive than the content of other surveys. ISDP may also lend itself less to eliciting long responses from respondents than other surveys, such as the National Medical Care Utilization and Expenditures Survey (MMCUES), the content of which is not necessarily less delicate than ISDP but may inspire long discussions on health problems.

In the context of privacy concerns, we observe an unexpected finding in that the frequency with which "income too sensitive" is marked is relatively low--interviewers noted this refusal category for only 28 cases. This seems to belie concern for the sensitivity of the survey, since its immediate focus is on income. A popular belief is that income, particularly the details which are ascertained on ISDP, is an area which people are reluctant to discuss. Our data indicate that sensitivity about income, per se, is not as serious as one might expect a priori. Indeed, the relatively low frequency of income sensitivity is even more surprising in light of speculation that interviewers may be tempted to emphasize this in their perceptions of reasons for refusal as

a projection of their own objections [6].

It may be that income is losing its sensitivity in light of current economic conditions. The effects of inflation are pervasive and inspire much public and private discussion, and respondents may be less reluctant to discuss their income than in previous surveys.

In any case, one can infer that privacy and income sensitivity are separate issues since the two categories rarely occur together (table not shown). Other areas of ISDP's content may well be considered sensitive and create privacy concerns. For example, according to interviewer comments, the marital history questions in the third wave were especially sensitive for some older respondents and some ethnic groups. But an examination of "privacy" vis-a-vis "income sensitivity" indicates that concern for privacy may be one of principle and that "privacy" and "income sensitivity" are not different labels for the same thing.

Do major socioeconomic and demographic groups differ in their reasons for refusal? Our data suggest that they do not. Percentages naming "invasion of privacy", "don't want to spend time", and the general "other" category overwhelmed other specific responses when refusal reasons were tabulated by region, age, household size, gender and race subgroups (tables not shown). In addition, log-linear models were fitted to the joint distribution of age, gender, size of household and reason for refusal (dichotomized as "invasion of privacy" v. the other reasons and "don't want to spend time" v. the other reasons) (tables not shown). In both sets of analyses, the best-fitting model was the model positing the mutual independence of the joint distribution of the demographic variables with the reasons for refusal. Hence, no one demographic group appears to have a greater tendency than another group to refuse because of privacy concern or time required.

The longitudinal nature of these data allows us to examine the interview status of refusal households over the waves of the survey. For example, we might speculate that unwillingness to spend time in the survey will be less likely for the initial interview than for subsequent interviews simply because respondents have a better understanding of the survey's demands on their time. In Table 1 (right panel), refusals are dichotomized into those refusing the initial interview and those cooperating in the initial interview but refusing in a subsequent wave(s).

The distribution of reasons for Wave 1 refusals does not differ substantially from the distribution of reasons for refusal after the initial interview. Our speculation about the effect of experience with the survey for the "spend time" refusal reason is not borne out. The relatively large proportion of refusals attributed to respondents' unwillingness to spend the time, even at the initial wave, is consistent with the notion that some are predisposed not to participate because, in effect, the potential benefits of surveys are not perceived to be worth the cost of time.

The question of whether some respondent households were more likely to refuse the initial interview than others was also examined. Both bivariate and multivariate, log-linear analyses show no

systematic differences between the wave of refusal and subgroups defined by gender, race, household size, age, or class of neighborhood (tables not shown). However, as seen in Table 2, sample type is significantly related to the wave of refusal. Only the SIE households were chosen from relatively recent Census surveys, and SIE refusal households were more likely to refuse in the initial interview than refusal households from other sampling frames (p(.01). Since most households in the SIE sample had been interviewed in the 1976 SIE study, past participation in surveys may have led to this higher initial refusal rate. Such a conclusion fits scattered observations from interviewers, field supervisors [5], and observers who noted that SIE household members were skeptical that they had, again, been randomly selected for a national sample. It also suggests that the use of survey lists for future sampling frames may risk higher-than-usual refusal rates. 7/

Table 3 displays the time of refusal by the wave of refusal. Most households refused the interview after the introduction but before any questions were asked; very few households refused after the interview was underway. The timing of these refusals suggests that changes in the introduction, some tangible incentives, or more publicity about the survey itself might convert potential refusers. 8/ Since convincing reluctant respondents that the survey is worthwhile often requires interviewers to depart from prepared texts, more interviewer training on the purpose and analytical utility of the survey should be explored. However, the table also suggests a small hard core refuser group: 46.7% of those refusing the initial interview (5.4% of all refusers) did so before the introduction. Presumably, changes in field procedures would have little impact on that group. Similarly, converting the twenty cases who refused after some questions had been asked in the second or later interview would appear to be problematic.

Finally, we examined the interview status of refusal households over the five waves of the survey. Table 4 presents breakdowns according to whether households were successfully interviewed or not in each of the waves preceding the refusal. Nonrefusal noninterviews in that table include situations such as the temporary absence of all eligible household members or unconfirmed moves. While there is a substantial amount of missing information 9/, the data show that at least 14 cases or 8% of household refusals in Wave 2, 12% in Wave 3, and 15% in Wave 4 had not been interviewed in the previous wave for some reason. 10/ Preliminary figures for nonrefusal non-interviews in the entire ISDP sample never exceded 4% in any interviewing period.

The high incidence of nonrefusal noninterviews in waves preceding a clear refusal suggests that households which are reluctantly participating in the survey may contrive to be difficult to reach in any given wave. In addition, households experiencing illness or bereavement may be initially viewed by interviewers as nonrefusal noninterviews and, later, as refusals. Since interviews can be viewed as social encounters, both interviewers and respondents may be reluctant to admit a refusal has occurred and, thus, postpone that admission. If that interpretation is correct, it suggests that special efforts might be made to provide incentives for household respondents who appear to be wavering between refusal and reluctant participation. Because field observation reports and interviewer comments suggest that many (perhaps most) of these cases are recognized as tenuous by the interviewers, some flexibility in handling them may be appropriate. For example, small tangible incentives offered at the discretion of the interviewers might be explored.

#### Summary and Implications

Data on interviewers' perceptions of refusals in the 1979 ISDP Panel show that the major reasons for household refusal are respondents' unwillingness to spend the time and/or their view of the survey as an invasion of privacy. Surprisingly, given the ISDP focus on income, sensitivity to income questions was cited as a refusal reason for relatively few cases. Both bivariate and multivariate analyses indicate that refusers do not differ significantly in their socioeconomic and demographic characteristics. Furthermore, the reasons for refusing do not vary between those who refused the initial interview and those who refused in a subsequent interview. However, refusals from households selected from a sampling frame of recent survey respondents are more likely to occur in the initial interview than refusals from households selected from other list frames. Among all refusal households, refusals are most likely to occur after the introduction but before any questions are asked. Finally, refusal households were more likely not to have been interviewed in waves preceding their actual refusal than are all households in the ISDP sample.

These findings lead to recommendations that list frames based on recent survey respondents be used with caution, that more attention be paid to survey introductions and aspects of interviewer training, and that more incentives for survey participation be considered.

#### Footnotes

- 1/ Marquis has collated non-response rates from various one-time and longitudinal surveys during the period 1960-75. He finds no evidence of increasing nonresponse within this period, although compared with the 1950s, non-response in the 60s and early 70s is higher. He also suggests that privacy concerns may be increasing and may adversely affect response rates in the future [7].
- 2/ More than one reason for refusal was possible for each refusal household.
- 3/ Some additional SSI and BEOG list households were sampled in Waves 2 and 3, and Waves 2 through 5, respectively. Those cases are excluded from this analysis.

- 4/ The exception to this pattern was the fourth wave mini-frame: Roughly one-third of the households were not interviewed in the fourth wave.
- 5/ Despite these instructions, many of the new forms also had more than one reason for refusal marked by the interviewers.
- 6/ Data on interview time for the first wave of ISDP show a range of 52.5 minutes per household, for the first month of the first wave, to 42.2 minutes, for the last month [1]. ISDP falls between CPS and MCUES in terms of length of interview.
- 7/ This observation is tentative because (i) addresses at the extremes of the SIE income distribution were oversampled in the SIE list frame; thus, these unweighted data may reflect other effects, and (ii) not all SIE household addresses contained the same members as they did in 1976. In addition, of course, some respondents from the other frames may have had previous experience as survey participants.
- 8/ The only tangible incentive provided in the 1979 Panel was a records' file, which was given in the first wave. While paying respondents has been rejected for cost reasons, other small gifts are under consideration.
- 9/ Note that there should be missing information (i.e., cases with previous status unknown); indeed, there should be more than there is. Information on household status in Wave 1 for Wave 2 refusals illustrates that our data set is not complete. This is true because only the new forms initiated in Wave 3 provide space in which interview status in previous waves is recorded. Thus, Wave 1 information for Wave 2 refusals should not be there.

The information is there because it was reported on a refusal form for a subsequent wave. In turn, that means that an earlier wave's form was not available to us, given our SORT procedures in constructing the data set.

We are assuming that the missing refusal forms have only random effects on the variables under discussion in this paper. However, in Tables 2 through 4 we dichotomized interview status by initial or subsequent wave of refusal to minimize errors from such causes.

10/ In Wave 5, five refusal households that should have been interviewed in Wave 4 were not. In addition, more than half of Wave 5 household refusals were 'mini-frame' households that were not in sample in Wave 4. However, all forms for Wave 5 were not available when this preliminary data set was created.

	Count	Percent of Responses	Percent of Cases	Percent of Wave 1	Cases By Wave Subsequent Waves
Don't want to spend time	284	30.2	44.6	42.9	43.6
Invasion of privacy	206	21.9	32.3	27.6	32.3
Dislike of government	65	6.9	10.2	15.2	8.3
Don't want to be bothered*	55	5.8	8.6	13.3	4.8
In another survey	37	3.9	5.8	6.7	4.8
Income too sensitive	28	3.0	4.4	6.7	4.2
No reason given**	27	2.9	4.2	4.8	4.6
Refused to open door**	25	2.7	3.9	4.8	3.5
Relative's death or illnes**	24	2.6	3.8	1.0	<b>4.</b> 8 <sup>.</sup>
Other***	190	20.2	29.8	29.5	28.4
Total Responses	941	100.0	-		
Total Cases	637	-	147.7	152.5 (N=10	)5) 139.3 (N=433)

<sup>\*</sup> 'Don't want to be bothered' was a precoded reason for refusal on the old but not the new forms. Some recoding was done for all cases.

\*\* These categories did not appear on either form and were created from interviewer comments. The 'no reason given' category, for example, included such cases as "She just looked at me and slammed the door."

- \*\*\* Where possible, the 'other' category was recoded from interviewer comments. The count shown here represents those 'other' responses that could not be recoded. For example, one household refused in protest over the Iranian hostage situation, another because of an IRS audit.
- 1/ In 40 additional refusal cases, no interviewer comments were available and no precoded reason categories were marked. Those cases are excluded from both panels of this table. Also excluded from the right panel are 99 cases for which the Wave 1 interview status was unknown.

Table 2. Wave of Refusal by Sample Type (N=677)								
Sample Type								
		Censu	5					
	SIE	Area	SSI	BEOGS				
Wave of Refusal First wave	20.3%	5.78	8.6%	7.9%				
Subsequent wave	79.7	94.3	<u>91.4</u>	92.1				
Total Number of Cases	100.0 526	100.0 53	100.0 35	100.0 63				
Chi Square = 14.0	(p <b>&lt; .</b> 01)							

	Tal	ole 3.	• '	rime of		
Refusal	by	Wave	of	Refusal	(N=516)*	

	Wave of Refusal						
	lst Wave	Later wave					
Time of Refusal							
Before Intro	46.78	30.3%					
After intro, but							
before questions	51.7	65.3					
After some questions	1.7	4.4					
Total	100.0	100.0					
Number of Cases	60	456					
Chi Square = 6.9 (p <b>∢</b> .05) * Cases with no recorded refusal time are excluded.							

Tak	ole 4.	Refu	usals b	y	Wave	and
Interview	Status	ìn	Earlie	er	Waves	(N=677)

Interview Status in Ea	rlier	Wave	s (N=	=677)	l 
STATUS BY WAVE		REF	USAL	WAVE	]
	1	2	3	4	5
Refusals in Wave 1					
# Interviewed	-				
# Nonrefusal Noninterview	s –				
# Status Unknown	-				
# Refusals	118				
Total	118				
Refusals in Wave 2					
# Interviewed	125				
# Nonrefusal Noninterview	s 14				
# Status Unknown	31				
# Refusals	<u>-</u>	170			
Total	170	170			
Refusals in Wave 3					
# Interviewed	188	168			
# Nonrefusal Noninterviews	5 ll	28			
# Status Unknown	25	28			
# Refusals	-	-	224		
Total	224	224	224		
Refusals in Wave 4					
# Interviewed	68	68	59		
# Nonrefusal Noninterviews	s 3	4	12		
# Status Unknown	10	9	10		
# Refusals	-	_	_	81	
Total	81	81	81	81	
Refusals in Wave 5					
# Interviewed	72	67	63	28	
# Nonrefusal Noninterviews		4	11	5	
# Status Unknown	9	13	10	5	
# Refusals	_	_	_	_	84
# Not in Sample 1/	_	_	-	46	
Total	84	84	84	84	84
				-	-
17 0					

1/ See text footnote 4.

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