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**Respondent Cooperation and Requests for Contacts  
in Longitudinal Research**

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## ABSTRACT

Researchers contemplating panel research designs continue to face limited information on ways to reduce panel attrition. A common theme in the extant literature is the importance of the amount and type of information available to researchers to locate respondents who move. Data from the 1988 National Survey of Families and Households (N=13,017) are used to examine the extent of respondent cooperation to requests for the names and addresses of friends and relatives who might help researchers locate panel members who move and the antecedents of that cooperation. Taking respondents' social characteristics and likelihood to refuse participation into account, respondents with limited family networks are less likely to provide three contacts than are people with large family networks. Divorced, never married, and minority respondents are less likely to provide three contacts. The findings suggest that researchers can decrease panel attrition by training interviewers to recognize the factors that limit the number of contacts and by providing interviewers strategies for coping with these factors.

## Respondent Cooperation and Requests for Contacts in Longitudinal Research

The methodological problems associated with panel research designs are well known. Sensitization to the research topic, refusal to continue in the study, mortality, and mobility are significant problems that plague panel research (Kish, 1987). Researchers contemplating panel designs continue to face limited information on ways to reduce these problems, particularly attrition problems. Beyond a few advisory articles and monographs, we know very little about maintaining contact with panel members. Even less is known about the degree to which participants in the first wave of a panel study will cooperate with a request for information that facilitates locating the address of those who move. In this paper, I use data from the National Survey of Families and Households to examine the extent of respondent cooperation with a request for the names, addresses, and telephone numbers of friends and relatives and differentials in the level of cooperation.

There have been a number of major national and regional panel studies conducted in recent years and an increasing number of reports on procedures used to track respondents (Booth and Johnson, 1985; Call, Otto, and Spenner, 1982; Thornton, Freedman, and Camburn, 1982; Freedman, Thornton, and Camburn, 1980; Clarridge, Sheehy, and Hauser, 1978; Temme, 1975; Crider, Willits, and Bealer, 1971). A common theme in this literature is the importance of the amount and type of information available to researchers to locate respondents who move. The greater the access to the family and social networks of a panel member, the easier and less costly it is to locate the panel member (Call et al., 1982). If the

names and addresses of friends and relatives are not obtained from the respondent during the first wave of a panel study, researchers often must use costly public record searches to discover a friend or relative who can tell them where a panel member has moved.

A considerable amount of research focuses on nonresponse to surveys. Old people, young people, the less educated, blue collar workers, people with lower incomes, minorities, people living in large urban areas, people living in the Northeast and the West, and apartment dwellers are just a few of the social characteristics of people more likely to be nonrespondents (Groves and Lyberg, 1988; Smith, 1983; O'Neil, 1979). The characteristics of nonrespondents are similar to the characteristics of people who are hard to locate in panel studies (Kandel, Raveis, and Logan, 1983). One explanation is that people who tend to refuse to answer survey questions are often less interested in the survey and less likely to give information that would enable a researcher to reestablish contact with them for another survey. The refusal to answer the contacts question makes it very difficult to locate them for the follow-up. An alternate explanation is that people with the above characteristics might have smaller social networks that limits the chances that a researcher can find someone who knows where the person is. When applied to a request for contacts, we do not know the extent to which a nonresponse or only a partial response to a request for names and addresses of friends and relatives is a refusal to provide contact information or simply a respondent's inability to provide contact information. Respondents may be willing to respond to a request for contacts but unable to comply.

Usually it is easy to locate people with extensive social networks. People who actively participate in community-based organizations expand their social networks and are easy to locate through their acquaintances (Crider and Willits, 1973). Also, people living in rural areas are easy to locate given the high individual visibility, more personal social networks, greater knowledge of friendship and kinship networks, and the tendency to follow the activities of former residents (Crider and Willits, 1973; Crider et al., 1971). As the size and density of communities increase, the number of people a person knows in the community decreases (Goudy, 1990). A person living in a rural community or actively involved in community affairs often has a larger number of people who can be listed as contacts. On the other hand, a person whose parents are deceased, who has no children, and who has few relatives or friends may find it difficult to provide any names as contacts - - - - even though they are willing to provide contacts.

Relatives are the best source of information because family members usually follow the location and activities of other family members when they move. In the National Survey of Families and Households, for example, over 87 percent of the participants reported having a living sibling. Over 98 percent of those with a sibling either saw or received a letter or telephone call from a brother or sister within the last year. Almost 90 percent see or hear from a brother or sister at least once a month. The major limitation of focusing on relatives as contacts in a panel study is that the number of relatives varies considerably. A respondent may have many relatives or just a few. People from small families and limited kinship networks may not be able to provide the names of three or

four relatives as contacts.

Friendships tend to be transitory relationships that are largely dependent on residence and employment. Each year about 19 percent of the population moves (U.S. Bureau of the Census, 1989). Although the distance moved may not be great, many of these moves are associated with major life-course events such as home-leaving, marriage, divorce, or employment changes that disrupt previous social networks. Young, never married people are difficult to locate because they move more frequently and generally have limited social networks (Bright, 1967). While married and cohabiting couples usually have two family groups to select contacts from, a divorce or separation often eliminates previous in-laws as contacts and disrupts friendship networks. These transitions often result in new friendship networks and a loss of contact with previous friends. When a young person or someone who is contemplating a divorce is asked to name a friend who will know their whereabouts in five years, they may find it difficult to name anyone.

Inasmuch as relatives are more likely to know a respondent's whereabouts across time, the number of relatives provided as contacts is a critical gauge of how difficult it will be to find the respondent for a follow-up interview. The unanswered question is the extent to which a restricted number of relatives affects respondents' ability to provide names of contacts.

Interest in a survey's topic is frequently linked to higher response rates (Groves, 1989). In cross-sectional surveys the respondent agrees to participate based on vague attributions about the survey content and their potential level of interest in the survey topic. In panel

studies, however, respondents experience the interview content and the level of burden the survey invokes. The request for contacts usually is made toward the end of an interview. The request for contacts requires respondents to assess their interest in the survey and to determine if it is worth spending the time to do it again. Some respondents may have a large number of relatives who could be listed as contacts but may refuse to provide their names because they are not interested in the survey and do not wish to repeat the experience.

Our recent experience with the National Survey of Families and Households provides the opportunity to address the degree to which people comply with requests for contacts and the extent to which background characteristics, family and social networks, and interest in the survey affect the propensity to provide contacts.

## Data

The National Survey of Families and Households (NSFH) consists of interviews in 1987-88 with a national probability sample of 13,017 respondents. The sample design included a main sample of 9,643 males and females aged 19 and over and a double sampling of some smaller populations of interest. Seventy-five percent of the eligible respondents completed the face-to-face interview. The average interview took an hour and 40 minutes to complete. A detailed explanation of the content and design of the NSFH is reported in Sweet, Bumpass, and Call (1988).

The research design for the National Survey of Families and Households (NSFH)



contained provisions for a five-year follow-up of the 13,017 panel members. At the end of the interview we requested the names and addresses of friends and relatives who would know the panel member's whereabouts if he/she moved.

This is an ongoing research study. In about five years we may wish to contact you again to see how things are going. These last three questions are for our records only, so that we can get in touch with you if you move. Remember, everything you say is completely confidential.

Think of three relatives who, five years from now, would know where you have moved. This could be your (or your husband's/wife's) parents, a brother or sister, an adult child, or a favorite relative you keep in touch with. Who are the three relatives who will know where you are?

The interviewer recorded the name, address, telephone number, spouse's name, and relationship to the respondent for each name mentioned. If a respondent could not name a relative, we instructed interviewers to probe for friends or someone who would know where they moved. For older respondents, we trained interviewers to ask for the names and addresses of children or younger siblings.

During the data entry process we did not count listed contacts who resided outside the U.S. Also, we did not count listed contacts who lived at the same address as the respondent unless they had a different phone number. These restrictions affected the number of contacts reported by only 156 respondents. We did not count situations where the respondent listed a name as a contact but did not provide an address for that contact.

## Variables

People who are difficult to locate during follow-ups to panel studies differ from other panel members with respect to marital status, race, age, level of education, urban/rural residence, and geographic region of the country. In addition to these characteristics that are generally associated with refusing to respond to surveys, it is hypothesized that the extensiveness of family and social networks has an independent effect on the degree to which people will facilitate a subsequent interview by providing the names and addresses of contacts. The NSFH contains considerable detail on family relationships between children, sibs, parents, and other relatives. This permits a count of the number of living parents, siblings, and children age 19 or older. Since partner's parents and siblings are important contacts for most couples, the number of living partner's parents are included with the number of living biological parents and siblings. Given the low prevalence of stepchildren age 19 and older in the sample (6%) and the variable nature of relationships with older stepchildren, only biological children are considered in this analysis. The total number of living parents, siblings, and children should determine the level of difficulty a respondent will have complying with a request to name three close relatives.

The number of organizational affiliations is an indicator of the extensiveness of friendship networks in the community. The NSFH contains respondent reports on participation in 15 different kinds of organizations. Church affiliated groups (47%), sports groups (39%), and school related groups (34%) groups had the highest levels of participation. The organizational affiliation indicator is a sum of the listed organizations

that the respondent participated in at least several times a year.

Once the interview was complete and the interviewer had left the respondent's residence, we asked the interviewer to assess the respondent's interest in the survey on a seven-point scale that ranged from interested (61%) to not interested (1%). Given the few cases that expressed extreme lack of interest in the survey, I combined these people into the lowest category in a five-point scale.

## Results

Though they had just completed a very long interview, most respondents complied with our request for the names of relatives and friends as contacts. About 90 percent of the 13,017 respondents to the NSFH provided the name and address of at least one contact (Table 1). About half provided three contacts. Table 1 provides a comparison of the number of contacts provided by each variable in the analysis.

Of the 1262 respondents who did not provide any contacts, 35 percent overtly refused to provide references. An additional 4 percent could not think of anyone to list or insisted that there was no need for references. This latter reason was often given by older respondents who stated that they would "either be dead or still living here." Interviewers did not record any comment for the remaining 61 percent of the people without any listed contacts. These people may have refused or could not provide any names. Conversely, these blanks may represent interviewer error. The interviewers may have failed to ask for contacts.

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Table 1 about here

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### Respondent Characteristics

Table 2 presents the unadjusted and adjusted mean deviation estimates for each predictor variable in the Multiple Classification Analysis (MCA) of number of contacts listed by both males and females.<sup>1</sup> The adjusted mean deviations provide an estimate of the increment or decrement to the grand mean that is attributable to a particular category of a predictor variable when the impact of other variables is taken into account.

The average number of contacts provided is essentially equal for males and females with both sexes providing about two names. Males are less likely than females to provide three contacts but are more likely to list one or two contacts (Table 1).

Younger respondents often are characterized as less likely to provide contacts. The unadjusted estimates for respondents age 24 or younger are consistent with this perception. When we consider just age, people age 24 or younger are less likely to provide names of friends or relatives. This is not due to an increased percentage of refusals but to a smaller percentage of young people listing three names. Young males are less likely than young females to provide contacts. While most emphasis is placed on the difficulties associated with locating young people, very old people are also difficult to locate. Part of this difficulty may occur because people age 70 and older provide fewer contacts than the

average respondent.

When other respondent characteristics, number of contacts, and interest in the survey are taken into account, however, young people provide about the same number of contacts as most middle-aged people and the sex differences are minimal. Older people, however, continue to provide somewhat fewer contacts. This may be due to the tendency for older respondents to refuse to provide contacts because they did not plan to move and did not see the necessity of providing contacts.

While minorities often have extensive social networks within the minority community, suspicions regarding a researcher's motive for contacting them is often cited as a reason for lower minority response rates (Lewis, 1972). This suspicion also appears to apply to requests for the names of friends and relatives. There is a substantial drop in number of contacts for all minorities. Minorities are less likely to list three contacts and more likely to either refuse or list just one contact. Mexican-Americans, particularly males, list fewer contacts than do either blacks or whites. This is partially due to our decision not to count contacts listed from other countries. Many of the foreign addresses were in Mexico. Illegal alien status may have discouraged some Mexican-Americans from listing any contacts in the United States. Recent immigration to the United States may explain why others listed few contacts. Asians, for example, comprise a large proportion of the other category that also lists significantly fewer contacts. These race differences persist even after adjustment for other variables in the model. Whatever the reason, minority reluctance to cooperate or inability to provide the names of contacts makes re-establishing contact even more

difficult.

People who are never married, divorced, or widowed are more likely than married or cohabiting people to not provide any or just one or two contacts. The lack of in-laws may reduce the pool of people these respondents can list as contacts. When other factors are taken into account, there are considerable changes in the average number of contacts listed by marital status. For example, widowers provide more than an average number of contacts when other characteristics, such as age, are taken into account. It is the never-married male, irrespective of age, who provides fewer contacts. The reduction in the average number of listed contacts by marital status is considerably less when other characteristics are included in the model. Unlike age, which has lower adjusted coefficients due to the inclusion of marital status in the model, the reduction in the adjusted coefficients for marital status is largely due to the inclusion of the number of contact variables and the interest in the survey variable.<sup>2</sup> It is important to note that marital status is the only variable included in the model that does not have a significant total effect on number of contacts listed by females.<sup>3</sup>

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Table 2 about here

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People living in nonmetropolitan areas are more likely to provide three contacts than people living in metropolitan areas. People living in metropolitan areas, particularly in the Northeast and West, are more likely to refuse or to provide only one contact. This

difference persists when other predictors are taken into account. People who live in the most rural areas --- those not adjacent to a metropolitan area --- list more contacts. Since the number of relatives and race are included in the model, the tendency for people living in metropolitan areas to list fewer contacts may be the result of differences in the extensiveness of friendship networks. In addition to metropolitan size, geographic region does make a difference in the number of contacts listed. People residing in the West and Northeast provide fewer contacts than do people residing in the North Central states or the South.

#### Number of Potential Contacts

Only 42 percent of people age 19 and older report that both their parents are still alive. For a third of the population, neither parent is still alive. When in-laws are taken into account, over a fourth have no parent still living. Almost 20 percent only have one living parent. Only 13 percent of the population are married or cohabiting with both sets of parents still living. Irrespective of respondent's age, when both of the respondent's parents and in-laws are deceased there is a drop in the number of contacts listed and a concomitant rise in contacts listed when three or four parents and in-laws are alive. The drop is due to the increased number of people who do not provide any contacts or only provide one contact.

Adult biological children are important contacts for older respondents. A parent may die. Parents may become ill and move to a nursing home or their child's home. As parents

age, children become the best source of information regarding their parents' whereabouts. Thirty-six percent of our respondents reported one or more adult children. As the number of adult children increases, the number of listed contacts also increases. Net of age and other characteristics, respondents with four or more adult children show a substantial increase in the average number of listed contacts.

Over 93 percent of respondents have at least one living brother, sister, brother-in-law, or sister-in-law. Having no living siblings decreases the average number of contacts listed for both males and females. Having just one or two siblings also decreases the number of listed contacts, but not as much as for those with no siblings. These decreases are not due to a substantial increase in no contacts but to a tendency to provide two rather than three contacts. For males, there is very little change in the number of listed contacts as the number of siblings increases. There is a modest increase in contacts listed for females for those with three or more siblings. Aside from the small number of males and females with nine or more siblings, there does not appear to be a concomitant rise in the average number of contacts listed as number of siblings increases.

Previous tracking experience suggests that siblings may not be as good a contact source as parents and children (Call et al., 1982). Siblings often decline to provide address information for a brother or sister. Instead, they will refer the researcher to their parent for the address. This deferral by sibs appears to occur most frequently when the sought brother or sister is in some financial, marital, or legal difficulty. People who have two or fewer siblings are more likely to list no contacts or just one contact. This difference persists



even when age is taken into account.

Organizational affiliations is a composite measure of level of participation in 15 types of social organizations. It is assumed that increased participation in social organizations results in a concomitant rise in the number of friendships a person will have and the number of people who could be listed as contacts. Two-thirds of all respondents indicated that they participated in at least one type of organizational activity. People who report two or more organizational affiliations list more contacts on average than those who do not participate or affiliate with only one organization, largely because of the decrease in the number who do not provide any contacts. The increases in listed contacts do not consistently rise with level of participation and the increases are modest for both males and females. This modest increase is not surprising. The request for contacts focused on parents, children, and relatives. Increased numbers of friends, as measured by organizational affiliations, may not be reflected in the number of listed contacts because we only obtained a friend as a contact when relatives were not available.

### Interest in the Survey

Respondents who were very interested in the survey provided slightly above average numbers of contacts. A respondent's disinterest in the survey, however, resulted in a substantial drop in the number of listed contacts. Males and females with the lowest interest scores show the greatest drop in average number of contacts listed of any predictor variable, largely because a third of them did not provide any contacts. One explanation

for this sharp drop in number of contacts for the least interested respondents is that interviewers might have viewed respondents who did not provide contacts as being disinterested in the survey. This does not appear to be the case. Over two-thirds of the respondents in the least interested category provided one or more contacts. About seven percent of the highest interest group did not provide any contacts. Checks of various questions asked earlier in the survey showed that the "not interested" groups, particularly the lowest interest group, were often more likely to refuse to respond to questions. Although the refusal pattern was sometimes inconsistent, interviewers appeared to utilize the entire interview experience to assess the respondent's level of interest in the survey.

## Conclusions

A key mechanism for reducing panel attrition in longitudinal research is to obtain at the time of the initial interview the names and addresses of each respondent's primary family relationships. When asked for the names and addresses of three relatives, about 90 percent of all respondents will provide at least one name as a contact. About half will provide all three. The more contacts a respondent provides, the easier it will be to locate that respondent in the future.

Relative to other variables in the model, the extent of cooperation with a request for names and addresses of family and friends is primarily dependent upon the respondent's interest in the survey, the respondent's race, and the number of primary contacts available to a respondent.<sup>4</sup> Of the social background and residence variables included in the model,

race had the largest impact on the average number of contacts listed. Mexican Americans and other races (largely Puerto Rican, Asian, and other Hispanics) will provide a lower than average number of contacts. Blacks also have a lower average number of contacts listed, but not to the extent of other minorities.

As predicted, the number of primary family members and relatives impacts the average number of contacts listed. Net of other variables in the model, people with none or few adult children, siblings, or living parents provided fewer contacts. Having three or more living parents or adult children resulted in respondents providing more than two contacts. Increased participation in organizations followed a mixed pattern. Given the emphasis on relatives and the weak measurement of friendship networks, this study may not provide a good indication of the value of asking for friends as contacts. Nonetheless, participation in two or more organizations does increase the average number of contacts a person will provide.

Net of background and number of relatives, interest in the survey is the major predictor of the average number of contacts provided. It is hardly surprising that people who are not interested in the survey would be reluctant to provide contacts to help locate them for a subsequent interview. What is surprising is the extent to which the willingness to provide three contacts dropped rapidly as interest in the survey decreased just one response category on the seven point scale.

These findings are applicable to requests for contacts made in a face-to-face interview. Yet unanswered is the degree to which respondents will cooperate with a request for

contacts during a telephone interview or on a mail questionnaire. Previous work using a mail-back questionnaire that included a request for two contact names resulted in a 96 percent response to the request for contacts (Otto, Call, and Spenner, 1981). In contrast, only 72 percent of the participants complied to a request for a contact name and address at the end of a telephone interview (Booth and Johnson, 1985). This limited evidence suggests that there may be differences between survey modes.

Locating 95 or 98 percent of panel members after a period of one year, and especially after 10 or 15 years since the first contact, is not a fortuitous event. A comprehensive, multi-method tracking plan must be developed to reduce panel attrition (Call et al., 1982). A key part of this tracking strategy should be the acquisition of the three names and addresses for at least three relatives. The three contacts provides researchers a sufficient number of primary family members who are the most likely to know a panel member's whereabouts.

Most respondents will provide the names and addresses of contacts if the researcher adequately explains why the contacts are needed and clearly defines the type of people who should be listed. While we did not code the presence of comments, respondents who listed fewer than the requested three contacts frequently were apologetic that they could not think of any other relative who would know where they were. A special sequence of probes for a forgotten relative or for a very close friend may be needed to obtain additional contacts. Rather than a specific probe, we only provided a set of general interviewer instructions. In retrospect, we might have obtained more contacts if we had included

probes in the interview schedule.

The above findings reinforce the need for researchers to train interviewers to focus particular attention on obtaining contacts from the never married and minority respondents. These respondents are less likely to provide three contacts even when the number of potential contacts and their interest in the survey is taken into account.

Interviewer error is another source of missing contacts. Inspection of the tracking forms revealed that many interviewers left the entire tracking page blank or only filled in a portion of the page. In some instances interviewers may have skipped the request for contacts page. Others may have obtained one contact and failed to ask for more. More interviewer training and closer inspection of the interviews by supervisors should reduce many of these contact omission errors. This additional attention to training and supervision to ensure that contact information is available for each respondent may cause modest increases in the cost of the initial interview but will often preclude substantial tracking expenses to locate hard-to-find panel members during the subsequent reinterview.

In sum, researchers should not be reticent to ask respondents for contacts. By training interviewers to examine the respondent's social characteristics, the number of potential family contacts, and the respondent's level of interest in the survey and by providing strategies for coping with these factors that reduce the number of listed contacts, researchers can minimize the cost of future follow-ups and substantially decrease panel attrition.

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## Endnotes

1. MCA is a form of multiple regression using dummy variables that provides the means to assess the effects of nominal and ordinal variables on the dependent variable within the context of an additive model (Andrews et al., 1973). The technique imposes minimal restrictions on the data and handles nominal measurement, correlated predictors, and nonlinear relationships. The coefficients for all categories are estimated as deviations from the mean when unadjusted or adjusted for other covariates.
2. Based on analyses not reported here that incrementally added blocks of variables to a reduced-form model.
3. Educational attainment was dropped from the model because the variable did not have significant total effects for either males or females.
4. The *Beta* estimates provide a measure of the *relative* impact of the variables in the model (Andrews et al., 1973).

**Table 1. Percent of NSFH Respondents Who Provided Names and Addresses of Contacts by Respondent Characteristics, Family and Social Networks, and Interest in the Survey.**

	Number of Listed Contacts				Cases <sup>a</sup>	
	None	One	Two	Three		
<b>Sex</b>						
Male	11.3%	20.1%	25.6%	43.0%	100%	5227
Female	9.8	18.2	24.6	47.4	100	7790
<b>Age</b>						
24 or younger	11.9	21.7	34.2	32.3	100	1684
25 - 39	8.9	18.3	23.2	49.5	100	5243
40 - 54	10.2	19.3	22.8	47.8	100	2697
55 - 69	11.5	17.4	22.1	49.0	100	2043
70 or older	12.8	20.7	27.7	38.9	100	1346
<b>Race</b>						
Black	15.2	23.1	24.9	36.8	100	2391
White	8.8	17.3	25.4	48.6	100	9419
Mexican American	14.8	34.2	27.6	23.3	100	630
Other	23.2	28.3	18.8	29.7	100	552
<b>Marital Status</b>						
Married	8.8	17.3	22.3	51.5	100	6881
Cohabiting	8.4	22.3	24.8	44.4	100	710
Divorced	13.7	20.5	24.0	41.7	100	2072
Widowed	11.4	19.2	27.7	41.8	100	1326
Never Married	14.9	23.6	33.8	27.7	100	2028
<b>Metropolitan Area Characteristic</b>						
Metropolitan	11.9	20.3	25.7	42.1	100	9520
Adjacent to Metropolitan	7.0	16.2	23.0	53.8	100	2274
Nonmetropolitan	5.0	14.6	23.3	57.1	100	1223
<b>Region</b>						
Northeast	17.0	17.7	25.5	39.9	100	2561
North Central	7.0	18.3	24.5	50.5	100	3468
South	8.5	19.6	24.7	47.2	100	4671
West	11.3	20.9	26.0	41.7	100	2317
<b>Number of living parents and parents-in-law</b>						
None	14.0	20.0	23.9	42.2	100	3436
One	10.7	21.9	24.2	43.2	100	2517
Two	11.3	20.9	28.6	39.1	100	3755
Three	5.7	14.7	24.2	55.3	100	1515
Four	5.8	13.4	21.2	59.6	100	1794

Table 1 (continued)

	Number of Listed Contacts					Cases <sup>a</sup>
	None	One	Two	Three		
Number of Adult Children						
none	11.2	19.7	26.0	43.1	100	8513
one	9.0	25.6	24.0	41.4	100	1069
two	8.5	17.9	29.3	44.3	100	1158
three	10.0	15.5	21.1	53.4	100	861
four	9.0	14.2	16.9	60.0	100	505
five or more	8.1	12.9	20.6	58.4	100	717
Number of living siblings						
none	17.7	25.5	25.2	31.5	100	1082
one	15.5	22.2	29.7	32.5	100	1629
two	11.0	21.9	27.9	39.1	100	1846
three	8.7	18.3	25.4	47.5	100	1659
four	8.9	17.7	25.6	47.8	100	1448
five	9.3	15.5	23.1	52.2	100	1197
six - eight	8.9	16.5	21.6	53.1	100	2344
nine or more	7.0	17.2	22.7	53.1	100	1786
Organizational Affiliations						
None	13.7	22.9	25.1	38.3	100	4558
One	12.4	17.5	24.7	45.4	100	2756
Two	7.6	17.3	26.6	48.5	100	1901
Three	7.4	16.4	24.3	51.9	100	1370
Four	6.7	17.4	25.8	50.2	100	938
Five or more	7.1	17.0	24.1	51.7	100	1494
Respondent's level of interest in survey						
1 - interested	8.0	16.9	25.5	49.6	100	7545
2	9.2	21.4	26.1	43.4	100	2442
3	13.5	23.8	24.9	37.8	100	1292
4	18.3	28.2	21.4	32.1	100	676
5 - not interested	33.5	22.1	22.1	22.4	100	533
TOTAL	10.5	19.1	25.1	45.3	100	13017

<sup>a</sup> Unweighted N's

**Table 2. Multiple Classification Analysis of Number of Listed Names and Addresses of Contacts Provided by NSFH Respondents by Sex.**

	TOTAL SAMPLE		MALES		FEMALES	
	Mean Deviations*		Mean Deviations*		Mean Deviations*	
	Unadj.	Adj.	Unadj.	Adj.	Unadj.	Adj.
<b>Age</b>						
24 or younger	-.20	.00	-.28	-.02	-.11	.01
25 - 39	.08	.05	.10	.07	.06	.03
40 - 54	.04	-.04	.05	-.04	.03	-.03
55 - 69	.03	-.02	.03	-.04	.03	.02
70 or older	-.12	-.07	-.07	-.06	-.17	-.07
Beta		.04		.05		.03
<b>Race</b>						
Black	-.22	-.14	-.20	-.12	-.23	-.17
White	.08	.06	.08	.06	.08	.07
Mexican American	-.47	-.45	-.58	-.52	-.36	-.37
Other	-.52	-.40	-.45	-.33	-.59	-.48
Beta		.14		.14		.15
<b>Marital Status</b>						
Married	.12	.01	.15	.05	.09	-.03 <sup>a</sup>
Cohabiting	.01	.01	-.05	-.03	.08	.07 <sup>a</sup>
Divorced	-.10	.05	-.17	-.02	-.09	.07 <sup>a</sup>
Widowed	-.04	.15	-.03	.22	-.08	.10 <sup>a</sup>
Never Married	-.32	-.11	-.36	-.17	-.25	-.01 <sup>a</sup>
Beta		.06		.09		.05
<b>Metropolitan Area Characteristic</b>						
Metropolitan	-.07	-.04	-.07	-.04	-.07	-.04
Adjacent to Metropolitan	.19	.12	.20	.12	.18	.11
Nonmetropolitan	.27	.12	.27	.12	.28	.13
Beta		.07		.07		.07
<b>Region</b>						
Northeast	-.16	-.10	-.14	-.09	-.17	-.10
North Central	.13	.06	.13	.08	.13	.04
South	.05	.04	.07	.04	.04	.04
West	-.08	-.04	-.12	-.07	-.03	.00
Beta		.06		.07		.06
<b>Number of living parents and parents-in-law</b>						
None	-.10	-.14	-.09	-.13	-.11	-.07
One	-.06	-.04	-.10	.07	-.03	.00
Two	-.11	-.01	-.13	.00	-.07	.05
Three	.24	.15	.24	.11	.25	.21
Four	.29	.20	.33	.19	.26	.21
Beta		.11		.10		.13

Table 2 (continued)

	TOTAL SAMPLE		MALES		FEMALES	
	Mean Deviations*		Mean Deviations*		Mean Deviations*	
	Unadj.	Adj.	Unadj.	Adj.	Unadj.	Adj.
Number of Adult Children						
none	-.05	-.08	-.04	-.06	-.04	-.10
one	-.07	.00	-.10	-.06	-.06	.05
two	.04	.09	.07	.10	.00	.08
three	.11	.16	.08	.12	.13	.19
four	.24	.31	.33	.37	.17	.26
five or more	.25	.35	.25	.35	.24	.34
Beta		.13		.12		.14
Number of living siblings						
none	-.33	-.23	-.42	-.27	-.29	-.20
one	-.26	-.18	-.24	-.11	-.28	-.23
two	-.10	-.06	-.12	-.05	-.08	-.06
three	.06	.04	.00	.00	.11	.08
four	.06	.02	.07	.00	.05	.03
five	.12	.05	.06	-.01	.17	.11
six - eight	.14	.08	.16	.07	.11	.08
nine or more	.17	.17	.21	.18	.14	.16
Beta		.12		.11		.13
Organizational Affiliations						
None	-.17	-.10	-.21	-.12	-.14	-.09
One	-.02	-.03	-.03	-.04	-.02	-.02
Two	.11	.09	.12	.10	.10	.07
Three	.15	.07	.15	.08	.14	.07
Four	.15	.08	.12	.04	.18	.12
Five or more	.14	.10	.20	.14	.09	.06
Beta		.08		.10		.07
Respondent's level of interest in survey						
1 - interested	.11	.09	.11	.09	.11	.09
2	-.02	-.01	.03	.03	-.06	-.05
3	-.19	-.15	-.20	-.16	-.16	-.12
4	-.38	-.30	-.34	-.26	-.40	-.33
5 - not interested	-.70	-.60	-.65	-.57	-.74	-.62
Beta		.16		.16		.16
GRAND MEAN	2.06		2.00		2.10	
NUMBER OF CASES	13017		5227**		7790**	

Note: \* Deviations from Grand Mean

\*\* Unweighted N's

a Total effects not significant for females' marital status.  
All other variables have significant total effects (P=.001).

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