

Introduction

The Survey of Income and Program Participation (SIPP) promises to become the most important source of data for measuring the level of and changes in the economic well-being of the U.S. population. Collection of these data began in the fall of 1983. The survey design for the initial sample of 25,900 housing units in the noninstitutional population, calls for each household to be interviewed at 4-month intervals over a 2-1/2 year period. The sample is divided into 4 rotations or panels of equal size and one panel is interviewed in each month throughout this period resulting in a total of eight personal contacts by Census interviewers for each sample household.

The first interviews in this new survey were conducted during October, November, and December of 1983, and January 1984. The questionnaire used to collect information in the initial interview concentrates on labor force participation and sources and amounts of income. Most data is recorded separately by month for the 4-month reference period ending in the month prior to the month of interview. For example, data collected in the October 1983 interviews covered the June through September period. Most interviews were completed during the first 2 weeks of the interview month.

The primary purpose of this paper is to present some preliminary indications of the item nonresponse rates for the first interviews of SIPP. These rates of nonresponse cover labor force, income reciprocity, and income amounts. The effect of self or proxy respondents on nonresponse rates is discussed for a selected group of items. Some data on other aspects of the survey have also been included. These are overall household noninterview rates, average times required for interviews, and use of callback procedures to obtain missing information.

Item Nonresponse

Item nonresponse is defined in this paper to mean a missing answer to a specific question that should have been answered. Item nonresponse can result for many reasons, the most frequent being lack of knowledge by the respondent, i.e., "Don't Knows," and refusals to answer. Nonresponse can also result when the interviewer fails to record a response in the correct location or follows an incorrect path within the questionnaire design.

Labor Force Items--Table 1 shows preliminary nonresponse rates for items 2a, 2b, 4, 5a, 5b, 6a, 6b, 6c, 7a, 7b, and 8a of the labor force and reciprocity section on the first interview questionnaire. The questions themselves are shown in Figure 1.

In general, the nonresponse rates for the labor force questions were low (see table 1). The nonresponse rate on item 2a, incidence of looking for work or on layoff for persons who did not work at all during the reference period (nonworkers) was only 0.4 percent. About 6.7 percent of the nonworkers reporting looking or on layoff had a nonresponse for item 2b, the number of weeks spent looking or on layoff.

The comparable nonresponse rates for workers were 1.0 percent for incidence of looking or on layoff (item 7a) and 3.2 percent for item 7b, the number of weeks spent looking or on layoff. The nonresponse rate for item 4, asking if the respondent held a job or business during the entire 4-month reference period, was less than 0.1 percent.

One of the questions with a relatively high nonresponse rate in the labor force section was item 5b covering the number of weeks absent without pay for persons having a job for the entire period. The nonresponse rate for this question was 11.6 percent.

Item 8a is the question covering the number of hours usually worked per week during the 4-month period. This critical data item was missing for 1.3 percent of the 25,510 sample persons reporting a job or business during the reference period.

Income Reciprocity--A major portion of the questionnaire was designed to determine the sources of income received during the 4-month period by each household member age 15 years old and over. A total of 52 different income sources (other than earnings from employment) were covered in the survey. Tables 2 and 3 show income reciprocity nonresponse rates and ratios of nonresponses to "YES" responses for SIPP and the March 1983 CPS for a selected group of income types. The rates refer to the 4-month reference period for SIPP and calendar year 1982 for the March CPS.

The nonresponse rates for SIPP are extremely low and vary only slightly by rotation. The nonresponse rate on reciprocity for SIPP ranged from less than 0.1 for Aid to Families with Dependent Children and private pensions to 1.3 percent for stocks or mutual funds. In contrast, the rates for the March 1983 CPS clustered around the 10-percent level. These rates for the March CPS are largely attributable to the 7 percent household noninterview rate on the income supplement questionnaire.

The last two columns of table 3 show the ratios of nonresponses to "YES" responses for SIPP and the March CPS. This measure of nonresponse may be better than the overall nonresponse rate because it provides a measure that is relative to the size of the recipient universe. The March CPS ratios are again much higher than those encountered in the first interview of SIPP. This difference is also related to the 7 percent March supplement noninterview rate. Given this fixed nonresponse rate the ratio is inversely related to the proportion of the population receiving a specific income type. This is evident by the large ratio of 4.01 for Aid to Families with Dependent Children. The ratio itself means that, in this case, the number of nonresponses and, therefore, imputations required exceeded the number of "YES's" by a factor of 4 to 1.

Hourly Wage Rates--The nonresponse rates on hourly wages are shown in table 4. These rates are shown separately by type of respondent. The nonresponse rate was 9.5 percent overall, 5.1 percent for self response and 16.7 percent for proxy response. The overall nonresponse rate for

hourly wages increased from the 7.8 percent level in October to 10.5 percent in January. This resulted mainly from an increase in the nonresponse rate for proxy responses of from 13.8 percent in October to 19.2 percent in January. Approximately 62 percent of the respondents were "self."

Monthly Wage or Salary Income.--Table 5 contains the nonresponse rates for the monthly amounts of wage and salary income. The nonresponse rate overall averaged about 6.2 percent for the initial SIPP interviews. The rate for self respondents, which accounted for 64 percent of the total, was lower, 4.6 percent, while the rate for proxy respondents was 9.0 percent. The 9.0-percent nonresponse rate for proxy interviews on monthly earnings amounts was considerably lower than the comparable rate of 16.7 percent for hourly wage amounts. Nonresponse rates increased from 5.4 percent to 6.7 percent between October and January.

Self-Employment Income.--Nonresponse rates for self-employment income have traditionally exceeded those for most income types. The items in the self-employment section of the SIPP questionnaire cover monthly amounts of "salary" and other income received by owners of businesses, professional practices, farms, etc. The question is not designed to obtain estimates of the business's net profit on a monthly accounting period. An additional question was included covering estimated net profit for the entire 4-month reference period. The nonresponse rate overall for the monthly salary or other income received by the self-employed was 14.0 percent (see table 6). The nonresponse rate for proxy interviews exceeded that of self-responses by a considerable margin. The rate for proxy interviews was 22.3 percent compared to 9.8 percent for self responses. The October nonresponse rate of 13.6 percent was not significantly different from the January rate of 15.1 percent. About two-thirds of respondents for this item were "self."

Interest Income.--Table 7 contains nonresponse rates for interest amounts received during the SIPP 4-month reference period. These rates cover the interest amount received from one or more of the following sources: 1) regular or passbook savings, 2) money market deposit accounts, 3) certificates of deposit, or other savings certificates, and 4) NOW accounts or other interest earning checking accounts. The nonresponse rate for interest income from these sources was 34.6 percent. The rate in January was 35.4 percent, somewhat higher than the 32.6 percent for October. About 4 percent of the total number of nonresponses on interest amounts can be attributed to refusals. The remainder were mainly categorized as "Don't Knows." A "Don't Know" response to interest income was followed by a question to obtain the balance or amount in the account. The nonresponse rates for this item are also shown in table 7. The nonresponse rate for balances in savings was 24.2 percent. In combination these two nonresponse rates indicate that both the interest amount and the balance amount were missing in only about 13.3 percent of the sample cases for these sources of interest income.

Dividend Income.--The questions covering the amount of dividend income received were divided into two categories, those dividends actually received and those credited against a margin account or automatically reinvested in additional shares of stock. As indicated by the data in table 8, the nonresponse rates for these two categories differ significantly. The rate for dividends actually received was 9.4 percent. The rate for dividends credited was 30.7 percent.

Noninterview Rates

The noninterview rate is a measure of the proportion of occupied housing units, i.e., those eligible for interview, for which interviews were not obtained. As mentioned earlier the total sample size for the 1983 SIPP was about 25,900 housing units. Of this total about 4,600 were not eligible for interview. These ineligible units were found to be vacant, demolished, under construction, or unoccupied for other reasons. This left 19,900 households eligible to be contacted. Interviews were not obtained for 4.8 percent of this group (see table 9). Most noninterviews, about 77 percent, were refusals to participate. The remainder of the total noninterview rate consisted of situations classified as "no one home" and "temporarily absent." These classifications were assigned after repeated visits failed to yield a contact.

The noninterview rate varied considerably by region of the Country. The lowest noninterview rate was 2.4 percent from the Kansas City Regional Office that covers Kansas, Missouri, Iowa, Minnesota, and Wisconsin. The highest noninterview rate was 10.1 percent from the New York Regional Office covering the parts of New York and New Jersey in the vicinity of New York City.

There was slight variation in the noninterview rates by month of interview, however, these rates were not significantly different from one another. The rate for the first month of interview was 5.1 percent compared to 4.3 percent, 5.2 percent, and 4.8 percent in the succeeding 3 months, respectively. The overall noninterview rate for SIPP (4.8 percent) was not significantly different from the overall rate for the March 1983 CPS (4.4 percent) or the rate for the panel coming into the March 1983 CPS for the first time (5.4 percent). As noted earlier, about 7.0 percent of the March CPS sample households completed the monthly labor force questions but were noninterviews on the income supplement. These cases are in addition to the 4.4 percent household noninterviews.

Callback Items

The design of the SIPP questionnaire incorporated procedures for following up on missing responses to items identified as either especially important to the overall quality of the survey data or with previously noted high nonresponse rates. The first step in this process was the determination that the answer to the designated question would be available from another household member not present at the time of the interview or at a later date. If so, the interviewers, in most cases, called back by telephone to obtain the missing information. The data in table 10 summarize use of the callback system.

The callback system appears to be most effective for obtaining missing data on amounts of monthly wage and salary income. About 600 cases were marked for callback for these amounts. The procedure obtained responses to the missing earnings amounts in about 7-out-of-10 cases. Use of the callback was less successful in obtaining missing amounts for the other income sources. Slightly more than half (54 percent) of the callbacks were successful for obtaining data for the monthly amount of salary and other income received from self-employment. Attempts to follow up on amounts of interest and dividend income from various sources proved to be even less effective. About 45 percent of the respondents were able to supply an amount when contacted by an interviewer. Use of the callback procedures appears to have declined between the October and January interviews. Generally, the number of cases marked for follow-up in January were lower than October. While less frequent use of the callback might have been related to a reduced need for follow-up, nonresponse rates for some of these income types tended to increase between October and January, indicating the opposite.

Interview Time

The time required to conduct an initial SIPP interview is potentially quite long given the number of questions. Obviously households with a large number of adult members, those 15 years old and over, are those that are exposed to the longest overall interview times, on average. The data in table 11 provide the first estimates of interview times based directly on times entered on each person's questionnaire by the interviewers. The time required to complete the household control card and roster was added to the interview time on the first questionnaire for the household. These estimates are shown by size of household for the first interview period of SIPP.

The median interview time was 43 minutes for all households in the first interview. The median interview time declined steadily from 48 minutes in October to 41 minutes in January. The median household interview time for 1-person households was about one-half hour while that for 4-person households was one hour and ten minutes. Households with 5, 6, and 7 or more members required proportionally more time for interviews.

Summary

This examination of some of the early "returns" from the 1983 SIPP are, for the most part, encouraging. The household noninterview rate was lower than most had anticipated. The item nonresponse rates were much lower than those experienced in the March CPS. Proxy responses caused significantly higher nonresponse rates for some of the key items studied.

There is reason for concern, however, in several areas and these should be watched closely. The first is the general trend toward higher nonresponse rates between October and January interviews. The second is the relatively high noninterview rate for the New York area. While this is consistent with our experiences in other surveys, this rate should be monitored closely as will the rates in the other regions.

The next step in the evaluation of the 1983 SIPP data will be comparison of the survey esti-

mates of income recipients with figures derived from program statistics and other independent sources. This analysis will provide a very important look at the magnitude of survey underreporting, a major concern of SIPP and other household income surveys.

Figure 1. Selected Labor Force Questions

NONWORKERS

2a. Even though ... did not have a job during this period, did ... spend any time looking for work or on layoff from a job?

YES -- ASK 2b

NO

2b. In which weeks was ... looking for work or on layoff from a job?

WORKERS

4. Did ... have a job or business, either full or part time, during EACH of the weeks in this period?

YES -- ASK 5a

NO -- ASK 6a

5a. Was ... absent without pay from ...'s job or business for any FULL weeks during the 4-month period?

YES -- ASK 5b

NO

5b. In which weeks was ... absent without pay?

WORKERS WITH WEEKS WITHOUT A JOB OR BUSINESS

6a. In which weeks did ... have a job or business?

6b. Was ... absent from work for any full weeks without pay?

YES --ASK 6c

NO

6c. In which weeks was ... absent without pay?

7a. During the weeks that ... did not have a job did ... spend any time looking for work or on layoff?

YES -- ASK 7b

NO

7b. In which of these weeks was ... looking for work or on layoff from a job?

WORKERS

8a. In the weeks that ... worked during the 4-month period, how many hours did ... usually work per week?

Table 1. Selected Item Nonresponse Rates for the Labor Force Items on the 1983 SIPP: Interview No. 1

Item	Total	Rotation			
		One	Two	Three	Four
2a	0.4	0.4	0.4	0.4	0.3
2b	6.7	8.2	6.8	5.9	5.9
4	0.1	0.1	0.1	(Z)	0.1
5a	0.1	0.1	0.1	0.1	0.1
5b	11.6	12.6	11.0	8.2	14.4
6a	2.2	2.9	2.0	1.9	1.8
6b	3.3	6.6	2.3	1.8	1.4
6c	6.8	2.1	12.2	3.3	10.5
7a	1.0	0.9	1.0	1.1	0.9
7b	3.2	4.7	3.7	2.0	2.0
8a	1.3	1.3	1.3	1.2	1.2

Z Less than .05 percent.

Table 2. Selected Item Nonresponse Rates for Income Reciprocity During the 4-month Reference Period on the 1983 SIPP: Interview No. 1

Income type	Total	Rotation			
		One	Two	Three	Four
Social Security.....	0.6	0.6	0.6	0.5	0.5
Unemployment compensation.....	0.1	0.1	0.1	0.1	0.1
Veteran's payments..	0.2	0.2	0.2	0.2	0.2
Aid to Families with Dependent Children.	(Z)	(Z)	(Z)	(Z)	(Z)
Food stamps.....	0.3	0.4	0.4	0.2	0.2
Private pensions....	(Z)	(Z)	(Z)	0.1	(Z)
Savings accounts....	1.0	0.8	0.8	1.1	1.1
Shares of stock or mutual funds.....	1.3	1.4	1.1	1.3	1.3
Rental property.....	1.0	1.0	0.7	0.9	1.1

Z Less than .05 percent.

Table 3. Selected Income Nonresponse Rates from the March 1983 CPS, Ratio of Nonresponses to "YES" Responses for the March 1983 CPS, and Ratio of Nonresponses to "YES" Responses for Interview No. 1 of the 1983 SIPP

Income type	March 1983 CPS nonresponse rate	March 1983 CPS ratio of nonresponses to "YES's"	1983 SIPP ratio of nonresponses to "YES's"
Social Security... Unemployment compensation.....	9.6	0.61	.03
Veteran's payments	9.6	1.16	.03
Aid to Families with Dependent Children.....	9.6	1.14	.10
Food stamps.....	9.7	4.28	.01
Private pensions..	6.4	0.84	.07
Savings accounts..	9.6	1.64	.01
Shares of stock or mutual funds.....	10.4	.21	.02
Rental property...	9.7	0.69	.09
	9.7	0.66	.13

Table 4. Nonresponse Rates on Hourly Wage Rate by Type of Respondent for the 1983 SIPP: Interview No. 1

Type of respondent	Total	Rotation			
		One	Two	Three	Four
Total.....	9.5	7.8	9.3	10.4	10.5
Self.....	5.1	4.1	4.7	5.9	5.6
Proxy.....	16.7	13.8	16.1	18.0	19.2
Proportion of Self Responses...	.62	.62	.60	.63	.64

Table 5. Nonresponse Rates on Monthly Wage and Salary Income by Type of Respondent for the 1983 SIPP: Interview No. 1

Type of respondent	Total	Rotation			
		One	Two	Three	Four
Total.....	6.2	5.4	5.8	6.8	6.7
Self.....	4.6	4.2	4.3	4.9	4.9
Proxy.....	9.0	7.6	8.4	10.2	10.1
Proportion of Self Responses..	.64	.63	.63	.64	.65

Table 6. Nonresponse Rates on Monthly Amounts of Self-Employment Income for the 1983 SIPP: Interview No. 1

Type of respondent	Total	Rotation			
		One	Two	Three	Four
Total.....	14.0	13.6	12.6	14.6	15.1
Self.....	9.8	9.5	9.7	9.6	10.2
Proxy.....	22.3	21.4	18.6	24.3	24.7
Proportion of Self Responses....	.66	.65	.67	.66	.66

Table 9. Household Noninterview Rates by Regional Office for the 1983 SIPP: Interview No.1

Item	Total	Rotation			
		One	Two	Three	Four
Total.....	4.8	5.1	4.3	5.2	4.8
Boston.....	3.8	2.9	2.5	5.4	4.6
New York.....	10.1	13.3	8.3	10.8	8.4
Philadelphia..	3.0	2.0	3.4	2.5	4.1
Detroit.....	4.1	3.0	3.6	5.4	4.1
Chicago.....	4.8	5.0	3.4	5.7	5.0
Kansas City...	2.4	1.6	1.6	4.0	2.5
Seattle.....	4.7	5.1	4.4	5.2	4.3
Charlotte.....	3.5	4.3	2.7	2.8	3.8
Atlanta.....	4.9	5.4	5.0	5.2	4.2
Dallas.....	5.1	5.0	5.1	4.6	5.8
Denver.....	5.3	6.1	5.7	4.1	5.5
Los Angeles...	7.5	9.3	6.2	8.9	5.8

Table 7. Nonresponse Rates for Amounts of Interest Income from the 1983 SIPP: Interview No. 1

Item	Total	Rotation			
		One	Two	Three	Four
Interest amount....	34.6	32.6	33.8	37.1	35.4
Percent refusals.	4.2	4.1	4.0	4.6	4.1
Balance amount.....	24.2	23.6	24.1	24.9	24.1

Table 10. Success Rates of Callback Items

Item	Total	Rotation			
		One	Two	Three	Four
<u>Success Rates</u>					
Wages and salary....	71.0	76.2	76.9	70.0	59.0
Self-employment.....	54.0	58.6	55.0	48.3	54.5
Interest and dividends.....	44.8	48.4	49.6	38.2	40.8
<u>Number of Callbacks</u>					
Wages and salary....	599	172	143	150	134
Self-employment.....	100	29	20	29	22
Interest and dividends.....	582	192	139	131	120

Table 11. Median Household Interview Times by Number of Members 15 Years Old and Over from the 1983 SIPP: Interview No. 1

Number of persons	Total	Rotation			
		One	Two	Three	Four
Total.....	43	48	44	42	41
One.....	29	33	30	26	26
Two.....	44	50	45	42	41
Three.....	57	64	57	55	55
Four.....	70	76	72	67	66
Five.....	83	90	81	84	77
Six.....	98	105	111	101	71
Seven or more..	113	114	(B)	120	94

B Less than 10 sample households.

Table 8. Nonresponse Rates for Amounts of Dividend Income for the 1983 SIPP: Interview No. 1

Item	Total	Rotation			
		One	Two	Three	Four
Dividends received.	9.4	10.3	8.3	9.8	9.3
Dividends credited.	30.7	28.2	33.8	30.1	30.5