

RESEARCH REPORT SERIES
(*Survey Methodology* #2005-10)

**SIPP Wave 1 Asset Income Item Nonresponse Results
and Nonresponse Follow-up Outcomes**

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Report Issued: October 3, 2005

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SIPP 2004 Wave 1 Asset Income Item Nonresponse Results and Nonresponse Follow-up Outcomes

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In the 2004 wave 1 SIPP questionnaire, new and expanded follow-up questions were implemented in response to an initial “don’t know (D) or refusal (R) nonresponse to questions concerning the amount of income produced by a person’s assets. These follow-ups provide initial nonrespondents with a multiple-choice range of income amounts from which to select, with varying cut-points depending on the specific asset type and the time period over which the income is to be reported. (Similar procedures were in limited use prior to 2004, but they were applied to only a subset of asset types, and referred to the value/balance of the asset, rather than the income amount it produced.) The goal of these follow-up questions was to try to glean some information, even if less precise, from respondents who initially nonresponded to the specific amount question.

This brief report examines the effectiveness of these follow-up questions, focusing on differences in effectiveness depending on the form of the original nonresponse, D or R. A risk of such nonresponse follow-up procedures is that they may be perceived as “badgering” reluctant respondents; a particular concern was whether there is enough pay-off from such procedures among respondents who initially refused to answer an income amount question (versus those who said “don’t know”) to justify the additional burden.

This analysis uses the unweighted and unedited “transCASES” data files derived directly from the 2004 SIPP wave 1 interviews. In the transCASES files, the asset questions are divided among three data sets as follows: interest-earning accounts (checking, savings, CDs, etc.) are in the Asset1 (A1) data set, stocks and mutual funds in Asset2 (A2), and the remaining miscellaneous asset types (rental property, mortgages, royalties, and “other”) are in the “Persons (P) file. We conducted separate analyses for each general type of asset and for all asset types as a whole. The results are summarized in the tables that follow.

First, as shown in Table 1, below, there were 86,002 adult respondents in wave 1, of whom somewhat less than half (38,373) were asked to report at least one asset income amount. These respondents were asked to report on 85,330 asset income amounts in total, for an average of a little more than 2 asset income amount reports per person (among those asked about *any* asset income). Of those who were asked about at least one amount, about two-thirds (69.5%) were asked about only one or two amounts; only a small percentage were asked about three (13.2%) or four or more (17.5%) asset income amounts. The SIPP interview covers 12 asset types, of which 9 could potentially require both a jointly-owned amount report and an individually-owned amount report, and another, rental property, could require 4 amount reports (both a gross and a

Total # of adult (15+) respondents	86,002
# of adult respondents asked to report 1 or more asset income amounts (% asked to report 1 or more asset income amounts)	38,373 (45%)
total # of asset income amounts asked about	85,330
avg # of asset amounts asked about (among Rs asked about 1+ amounts)	2.2
% asked about 1 asset income amount	43.3%
% asked about 2 asset income amounts	26.2%
% asked about 3 asset income amounts	13.2%
% asked about 4 or more asset income amounts	17.3%

net amount for both types of ownership arrangements). The theoretical maximum number of asset income amounts that could have been asked about in wave 1, therefore, was 24; the observed actual maximum number administered to any respondent in this data set was 17.

Table 2 summarizes the results of the primary analysis of interest – the nonresponse follow-up results for the three general types of assets and for all assets combined, presented separately by the form of the initial nonresponse. First we see that, overall, about 40% of all asset income amount questions asked in wave 1 were met with an initial nonresponse. The miscellaneous category, A3, elicited less nonresponse than the other categories (24%) – this is less than half the rate of nonresponse for the highest category, stocks and mutual funds (56% nonresponse). Across all three asset categories, the predominant form of nonresponse was “don’t know; this pattern was especially marked in the interest-earning accounts (A1) and stocks and mutual funds (A2) categories, where D nonresponses outnumbered R nonresponses by about a 4-to-1 margin. In wave 1, those who nonresponded to the initial income amount question with either a D or an R received a follow-up “income range” question, as noted above.

Table 2 also shows that, as expected, the outcome of the follow-up attempt varied greatly depending on the form of the initial nonresponse. Overall, those who nonresponded initially by saying “don’t know” were much more likely to provide a range response to the follow-up question (72%) than were those who responded initially by refusing to give an amount (26%; $t = 81.4, p < .0001$). This general pattern holds across all three asset categories. It is also very clear that the predominant form of nonresponse to the *follow-up* question mirrors the form of initial nonresponse – if they continued to nonrespond, those who started with a “don’t know” tended to also say “don’t know” to the follow-up, whereas those who started with a refusal and continued to nonrespond tended to also refuse the follow-up question.

Table 2: SIPP 2004 Wave 1 Initial Asset Income Item Nonresponse Results, and Nonresponse Follow-Up Outcomes, by Asset Category and for All Asset Types Combined

[Data source: unedited wave 1 transCASES files including all 4 rotations]

	Asset Category			
	<u>A1</u> interest- earning accts	<u>A2</u> stocks, mutual funds	<u>P</u> rental prop, mortgages, royalties, other	<u>TOTAL</u> all asset types
total # of asset income amount Qs asked	65,412	15,885	4,033	85,330
<u>Initial response:</u>				
reported a \$ amt (inc 0)	40,759	6,985	3,053	50,797
D nonresponse	19,530	7,123	610	27,263
R nonresponse	5,123	1,777	370	7,270
(initial % nonresponse: D+R)	(38%)	(56%)	(24%)	(40%)
<u>D follow-up outcomes:</u>				
selected a range	14,871	4,512	365	19,748
(% of initial Ds responding w/ a range)	(76%)	(63%)	(60%)	(72%)
D nonresponse to the follow-up	4,537	2,565	243	7,345
R nonresponse to the follow-up	122	46	2	170
<u>R follow-up outcomes:</u>				
selected a range	1,415	379	82	1,876
(% of initial Rs responding w/ a range)	(28%)	(21%)	(22%)	(26%)
D nonresponse to the follow-up	113	41	4	158
R nonresponse to the follow-up	3,595	1,357	284	5,236
<u>Final nonresponse results:</u>				
# of amt Qs	<u>65,412</u>	<u>15,885</u>	<u>4,033</u>	<u>85,330</u>
reported a \$ amt (inc 0)	40,759	6,985	3,053	50,797
selected a n-r follow-up range	16,286	4,891	447	21,624
D/R to n-r followup	8,367	4,009	533	12,909
(final % nonresponse: D+R)	(13%)	(25%)	(13%)	(15%)

The last row of Table 2 shows the substantial impact of the nonresponse follow-up procedures on the final rate of nonresponse to the asset income amount items. (The final nonresponse rate is defined here as the proportion of asset income amount questions to which there was a nonresponse to both the initial dollar amount question and the multiple-choice “range follow-up.”) While there is some variation across the major asset categories, in general the picture is quite consistent: the wave 1 nonresponse follow-up questions reduced nonresponse by about half, or more.

Summary and conclusions

The wave 1 asset income nonresponse follow-up procedures used in the 2004 SIPP panel were very successful in reducing the proportion of income amounts beset by completely missing

information. The procedures were especially effective for those whose initial response was “don’t know – almost three-quarters of those who nonresponded in this manner did subsequently report a range in which their income fit. The comparable success rate for those who initially refused to provide a dollar amount was substantially lower, but even among that group the information gain from the nonresponse follow-up procedures was substantial, with about one-quarter subsequently reporting an income amount range. Including the range reports from initial nonresponders in the procedures designed to fill in missing data should greatly improve the quality of the resulting imputations. Finally, because most respondents are presented with very few asset income questions, we suspect that the additional burdens of the nonresponse follow-ups on any individual respondent are likely to be small, and far outweighed by their benefits.

Technical notes:

The analyses summarized above revealed some problems in the Asset1 and Asset2 data sets. In essence, the 2004 wave 1 questionnaire was designed such that for each asset income amount to be collected one of two initial questions was asked – one for use if the respondent chose to report amounts for each individual month, and the other for all other reporting periods. The nonresponse follow-up procedures also provided two different questions, with different sets of “range” values, for each asset type – one for use in reporting an annual income amount, and the other for all other reporting periods (monthly, quarterly, 4-month total, other)¹. A few cases showed responses to both of the initial amount questions. In the Asset1 (interest-earning accounts) file this occurred in 55 cases, 50 of which showed a dollar amount answer in one of the questions and a D or R in the other. In the Asset2 (stocks and mutual funds) file, there were another 8 such cases, 7 of which had similarly conflicting entries. Where the entries conflicted, we arbitrarily chose to record these cases as having reported a dollar amount, and ignored the initial D/R and its follow-up. Where the two entries did not conflict – both were a dollar amount, or both were a D/R – we arbitrarily chose to record the first entry. Because of the very small number of cases involved, we are certain that these decisions had no noticeable impact on our results.

A more frequent problem we encountered was a data entry in the “wrong” follow-up question – that is, the initial nonresponse was for one asset type, but the follow-up entry was found in a follow-up question that was supposed to have been asked about another asset type. The Asset1 file contains three different sets of follow-up questions: checking and savings accounts share one set of follow-ups, money market deposit accounts and CDs share another set, and municipal/corporate bonds and US government securities share the third set of follow-ups. In the Asset1 data set we observed 2,874 cases in which the follow-up entry was recorded in the “wrong” place. Similarly, the Asset2 file contains one set of follow-ups for mutual funds and

¹Because the time periods covered are so similar, the same range cut-points were deemed appropriate for both quarterly and 4-month total reporting. In addition, respondents who selected (or defaulted to) a monthly reporting period or the “other” option were directed to 4-month total reporting in the follow-ups – i.e., the “wavelly” reporting period which is standard/traditional in SIPP for reporting asset income.

another for stocks; nevertheless we observed a follow-up entry in the “wrong” space 1,808 times. In Asset1, all these observations were coded as money market deposit accounts, CDs, municipal/corporate bonds, and US government securities, but with follow-up entries in the questions for checking accounts and savings accounts; in Asset2, all were supposedly stocks but with follow-up entries in the questions for mutual funds. In our analysis we chose to ignore the mismatch, and simply recorded the follow-up value regardless of the fact that it supposedly applied to a different asset type. Again, we doubt that this sort of problem has an important impact on our results, but we are concerned that the number of such cases might indicate an instrument bug that needs to be fixed.